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MONTHLY REPORT

OF

THE AGRICULTURAL DEPARTMENT.

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MONTHLY REPORT.

WASHINGTON, *April*, 1867.

The present number of the Monthly Report contains a digest of an immense mass of valuable information, from careful and practical farmers of all sections of the country, relative to the condition of farm stock at the close of the late long and hard winter. It illustrates forcibly the improvidence and cruelty of farmers in neglecting to provide food and shelter for animals in climates where stock can ordinarily support life through the winter without aid from man.

The promising prospect for an unusually heavy crop of wheat continues to be very favorable.

After the preparation of the matter for this Report, and too late for a record of facts obtained, I commissioned J. R. Dodge, the statistician and editor of the Report, to represent the Department at the fair of the New York Wool Growers and Sheep Breeders' Associations at Auburn, New York, deeming the effort of breeders there represented of the highest value to practical agriculture, and adding millions to the value of the wool of the country. Animals bearing a fleece of twenty to thirty pounds of fine wool in the grease, and nineteen to twenty pounds of lustrous long wool, are worthy of the high prices which they command; and breeders of such sheep are worthy of the gratitude and honor of their countrymen.

Interesting tables of crop estimates of the several States, in convenient aggregates, will be found worthy of particular examination.

For all details of such statistics, and a great variety of other valuable matter I refer the reader to the body of the Report.

I. NEWTON, *Com'r.*

CONDITION OF THE FARM STOCK OF THE UNITED STATES.

The increasing magnitude of this interest, and the enhancement of values through judicious crossing and more liberal keeping and skillful management, render important a careful investigation into the condition of the farm stock of the country. The opening spring, when flocks and herds emerge from the severities of winter to depasture sweet and nutritious grasses, is the proper time for such a review. The increase of disease, from want of feed and care, and possibly from deterioration in constitution, by injudicious breeding and management, suggests the urgent necessity of examination into its character, causes, and results. An interest involving a capital of fourteen hundred millions, without reference to investments in lands, buildings, and incidentals, demands the watchful care of public guardians of our national resources.

The following queries were embraced in a circular to correspondents, which was made returnable April 15th:

The correspondents of the statistical division are respectfully requested to answer the following queries, in detail, as fully as may be practicable. The answers, of course, cannot be given in the usual definite mode, by tenths, but an opportunity is afforded for a statement of isolated facts of great importance, in such terms and at such length as may be agreeable to correspondents:

1. Has there been any prevailing disease among cattle in your county during the past year? If so, what disease, and to what extent?
2. Has the Spanish fever prevailed among cattle in your county? If so, when did it appear, what has been the loss, and what method of treatment has been followed?
3. Has the hog cholera prevailed? If so, what has been the loss, and what remedies employed?
4. What diseases have prevailed among sheep, and to what extent?
5. Has any unusual disease prevailed among horses?
6. What proportion of wool remains on hand compared with the whole amount of last year's clip?
7. In what condition have sheep come out of winter quarters?
8. Are Cotswolds, Leicesters, South Downs, or other mutton breeds, more or less abundant than formerly? Please state definite facts, in actual experience, of the cost of keeping, amount of wool, &c., of these breeds, in comparison with Merinoes. No *estimates* are wanted, but actual facts, as full as may be practicable, from individuals who have bred both long and fine wool sheep.
9. What is the comparative condition of winter wheat? of winter rye?

These circulars were sent to all regular correspondents, and the returns were very complete, both in point of numbers and of particular details. Very few cases of omission, even of a single item occurred. The result indicates a generally favorable sanitary condition of farm stock, while it reveals disease and resultant loss, in particular localities, sufficient to excite apprehension and stimulate vigilance in applying that prevention which is always so much safer and cheaper than attempted cure. Small as such percentage of loss may be, the aggregate would astonish the farmers of the country. Cattle have suffered less from disease than any other kind of live stock. Horses stand next to cattle in sanitary condition. Sheep have been attacked by a variety of diseases, including starvation, and the consequent fatality has been considerable. Swine, always more subject to disease than any other farm animals, have been as unhealthy as ever during the past year. The widely prevailing hog cholera has claimed its victims by thousands, and has been scarcely excluded from any section of the country.

Exemption from disease has been quite general in the eastern and northwestern States, and few losses from maladies of whatever character are reported; nor has there been any widely prevailing epizootic among the cattle of the west and south. The diseases reported are pleuro-pneumonia, the so-called Spanish fever, abortion, horn-ail, bloody murrain, "blackleg," "distemper," "swelled brisket," and maladies with no name or well-defined symptoms.

Pleuro-pneumonia.—This disease is reported in Newport county, Rhode Island; in Kings county, New York; in Hudson county, New Jersey; and in Bucks county, Pennsylvania. Our correspondent in Newport, Rhode Island, says: "The cattle disease called pleuro-pneumonia has prevailed in this county to a limited extent for the last three or four years, but it has been considered exterminated several times since its first appearance here. From the best information I can get, I think about ten head of cattle have died of the disease in this county the past year, and probably some thirty more have been sick with it, and have recovered so far as to be fatted for beef. I have heard of no new cases for the last four months, and I hope we are now rid of it in this county. To prevent the spread of the disease, we have kept isolated all cattle known to have been exposed to it until danger of contagion was past, by which means it has been kept within narrow limits."

In Baltimore county, Maryland, a prevailing disease is reported, which is called "lung fever." It originated in the vicinity of Baltimore, and has spread considerably. In several dairies, numbering from twenty to eighty cows, heavy losses have occurred; in one, thirty cows; in another, twenty; in others, ten to fifteen cows. Various opinions relative to the disease and its treatment are entertained, with little agreement, except as to its contagiousness and the necessity of isolation. Few symptoms are reported by which to decide how this differs from pleuro-pneumonia, or whether it may be identical with it. The animal refuses food when taken sick, and the milk secretion ceases; the lungs are found to be much decayed.

Abortion.—This disease has prevailed to some extent in the dairy districts of New York, and in Washington county, Vermont; one or two cases in a herd of twenty cows are common, and, in a few instances, half the herd have aborted. Dr. S. J. Parker, of Tompkins county, New York, writes as follows: "Cows which are dried off in October or November, and have their calves knocked in the head before they suck, or are 'deaconed,' as it is called, and cows that are fed on *their own whey*, or have other disgusting or filthy processes to increase their milk, are very apt to abort; and the reason is apparent. The cow nurses her young till near the next birth; she never eats voluntarily her own semi-putrid milk or whey; or is 'doctored' or drugged to make more milk or cheese. Rosin, sulphur, nitre, and Spanish fly, and other articles, can hardly be got out of the head of certain farmers. Horses, cows, pigs, and all must have 'a little dose of something' all the time, they think."

Hollow horn.—Several places report the existence of "hollow horn." In Fayette county, Indiana, as a correspondent reports, "it is very common at this season of the year, especially with milch cows, of which one-fifth of the number are affected." The remedy in that quarter, which is vouched for as effectual, (as it certainly is very simple,) "is to make a slit in the end of the tail, insert some black pepper and salt, mixed, then wrap and tie up. It is usual to bore a small hole in the side of the horn; also, to rub turpentine on the head back of the horns."

In Lawrence county, Alabama, the same disease is reported; in Troup and Houston counties, Georgia; in Lorain county, Ohio; and in Whitley county Kentucky.

Various diseases.—In Park county, Colorado, a disease known there as "swelled brisket" has occasioned twenty to thirty deaths.

In Barton county, Georgia, and Jackson and Emmet counties, Iowa, losses from "black leg" are common.

Bloody murrain is prevalent in Harford county, Maryland, where fifteen cases and eleven deaths have occurred; in Gloucester county, Virginia; and in Clay county, Alabama. In Gloucester county, Virginia, it is stated that "four-fifths of those attacked die," and that "the loss is about ten per cent., one year with another." The estimate of loss is scarcely credible, if it is meant that a tenth of all the cattle of the county die annually from this cause.

In many places diseases are spoken of under the vague terms "murrain" and "distemper." In many cases reported, particularly in the south, these words are common. "Murrain" is prevalent in Barton county, Georgia; in Stokes and Lincoln counties, North Carolina. In Towns county, Georgia, "cattle pastured with cattle from the south take the murrain and invariably die, though those brought from the south do well," (indicating the identity in this case of "murrain" and Spanish fever.) In Caldwell county, North Carolina, "a disease among cattle known as 'distemper' proves fatal in nearly all cases," while in some cases the words "murrain or distemper" are used.

In Tippah county, Mississippi, the "dry murrain" prevails every autumn to some extent.

A correspondent in York county, Virginia, says that "cattle brought into the tide-water region of the southern States are subject to bilious dysentery, which proves fatal in most cases."

A correspondent in Buchanan county, Iowa, says: "A disease has prevailed among cattle in the southern part of this county during the latter part of the winter and this spring. The animal is taken with weakness in the fore legs, heaviness of the eyes, which are much sunken, then a gurgling sound in the windpipe and discharges at the nose, gradually declining until death. Tar has been used as a remedy. About three per cent. have died in that vicinity. The cattle in other parts of the county have not been affected."

Dr. G. M. Brown writes of a disease among cattle in Cumberland county, Virginia, which has prevailed at times for twenty years past, under the names, "Carolina distemper," "cattle plague," and "bloody murrain." He is inclined to consider it identical with rinderpest, but, from the description he gives, it is evidently not the cattle plague of Europe, which has never prevailed in this country. When it *does* appear, it will not be twenty years in making itself generally known. He says of it:

"The disease is attended with a great degree of fever, as shown in the case of milch cows by the cow suddenly ceasing to give milk, though the day before suckling her calf and giving the full quantity of milk. Sucking calves have escaped when the mother would die. The bowels at first are said to be constipated, and no cases have been said to be attended with diarrhœa or discharges of blood from the bowels; I presume because the disease has been so speedily fatal. The muscular twitchings and throbbing of the arteries (as I suppose) about the neck and head have been noticed; whether there has been any eruption on the surface, or the mucous membrane of the mouth or nose, has not been detected, or examined for, I apprehend, but the eyes are always affected—red and mattering. In the few cases that have been very imperfectly examined, after death, the contents of the stomach are described to be as dry as a chip, and the kidneys chiefly diseased. There is no doubt in my mind that this disease is similar to the rinderpest of Europe, if not identical with it, having the same symptoms of a malignant, contagious fever, of a typhoid character, and closely resembling the disease of the human system known under various names, as typhus, typhoid, and nervous fevers. Medical treatment appears to have been of little benefit; only in four or five cases (as far as I have had opportunity to inquire) have recoveries occurred,

and these chiefly when they were given up to negroes to do with them as they liked or being turned out to die; in two cases the cattle were exposed to long continued and cold rains, for the season, and recovered. The gentleman who reported the last cases added that, thinking he had learned something from this accidental use of cold water to the surface, the next and only case he has had since, being a favorite cow, he had cold water applied freely and frequently, which was followed by recovery. The negro treatment of the disease was very simple, but is said to be effectual in two cases. The tail of the animal was cut off very near the body, within a few inches, and green corn and apples, and similar things, used to entice the animal to eat. But I should not have troubled you with this tedious detail of description and treatment of this distemper if I had not some facts to make known to you as preventive of this disease, which the people here, who have tried it and known it for years, have as much confidence in as that vaccination will protect them from small-pox. It has been known and practiced for years by many in this county, that the keeping and herding of goats with the cattle gives certain protection against this cattle plague or distemper above described. In all my inquiries, all say they never knew a case of this disease where goats were reared and used among the cattle; and in many instances, after a farmer had lost some of his cattle, he would secure goats afterwards to range with his herd, and never as yet had the disease to return. At Cartersville, a village in this county, and its neighborhood, many years ago, this disease prevailed to the almost entire destruction of the cattle. The people then obtained goats, and for many years they were free from the plague; but in time, by neglect and the boys, the goats were driven off or killed, and this distemper returned, the same and as fatal as ever before."

SPANISH FEVER.

The disease known in a certain belt of country by this appellation, and sometimes as Texas fever, has proved exceedingly fatal, and has excited great apprehension in States in which it has ever raged; and in many cases it has aroused the hot indignation of stock-growers against Texan cattle drovers, who have been threatened with combined armed opposition, and compelled to desist from the prosecution of their trade.

Few observers of this disease are qualified to describe its symptoms with sufficient accuracy to enable one to judge of its precise character. Indeed, it is probable that the most scientific medical men, after careful and skillful examination, might differ widely in their conclusions. Our correspondents have furnished much information of a general character, not at all contradictory in the main facts, but by no means full in description of the symptoms.

It has been assumed by some to be identical with rinderpest. The assumption is utterly erroneous. The Texas cattle, in whose path of migration the local herds receive the subtle infection and sicken and die without remedy, are themselves exempt from outward sign of disease while communicating a deadly poison to others, apparently through the excrementitious matter which they leave in their track. This is by no means a characteristic of rinderpest. In this Spanish fever the infected beast, according to these returns, generally has an appetite and eats regularly during the progress of the disease; in rinderpest, on the contrary, the appetite is irregular, capricious, and then entirely lost. In the former, in some cases if not always, the bowels are open; while in the dreaded cattle disease of Europe constipation is the rule, succeeded in the progress of the disease by dysentery. In the Spanish fever there are discharges from the nose, as the disease progresses, of a greenish matter, which may or may not be similar to the greenish yellow and somewhat dense granular deposit upon the nasal orifices in rinderpest.

The duration of the Spanish fever is variable. It appears to reach a fatal

termination, in some instances, in two or three days; in others, a week; in others still, ten or twelve days.

It is a singular fact not only that the migrating herds improve in condition while disseminating the disease, but that such disease does not prevail, if it even exists, in the localities from which the cattle originate. Yet their bodies must contain the germ of disease, the virulent animal poison which is communicated by their excretions to the pastures upon which their victims feed after them.

The conditions necessary for the development of this poison are found in the latitude of southern Kansas and Missouri, in the more elevated sections of Arkansas, in parts of Tennessee, in southern Kentucky, in North Carolina, and the hill lands of Georgia and South Carolina. It is not reported further north than southern Illinois, and not known in Ohio, Pennsylvania, or Maryland.

A convincing proof that its development is referable in some way to climate is shown by a fact mentioned by a correspondent of its existence in the mountain lands of Georgia, generated by removal scarcely fifty miles away from the low lands.

That it is not produced by travel is evident, else cattle driven from Iowa to Ohio should sometimes show symptoms of it. More conclusive still is the fact that Texas cattle, driven to New Orleans, do not communicate the disease to the cattle of Louisiana. A correspondent mentions a fact which may be regarded as a marked corroboration. Eight hundred Texas cattle were last season driven into Mississippi county, Arkansas, and were scattered through the county without producing disease. This county lies in a latitude sufficiently high to awaken an expectation of a fatal result of such a migration; but it is on the Mississippi river, in a miasmatic region. It is possible that this suggestion covers the reason for the non-development of the disease.

A slip has been received from advance proofs of the Southern Cultivator for May, containing a letter from an experienced cattle drover relative to this disease, which shows that Florida cattle, as well as those from Texas, are capable of producing the disease under the proper climatic conditions. The letter is as follows:

ATHENS, GEORGIA, *April*, 1867.

EDITORS SOUTHERN CULTIVATOR: Mr. Isaac Newton, the Commissioner of Agriculture, desires information in regard to the cattle fever, or Spanish fever, as it is generally called. I have been a cattle dealer for 25 or 30 years, and in that time have had many a death among my stock by this disease, and have in consequence taken some notice, meanwhile endeavoring to learn its causes and how it was brought about.

I notice that cattle scarcely ever take the fever if let remain where they were raised, and I am fully convinced it is generally brought on by a change of climate. For instance, you take cattle from the mountain country to the low country and they will take the fever in a short time and die, but their disease will not affect the cattle raised there; but, on the other hand, take cattle raised in what we call a distempered part of our country—that is, the low country—from warm latitudes, up into a colder one, they will themselves improve all the time; but, without being sick themselves, they will spread the fever and kill the cattle in the section of country into which they are taken, till they travel on, or stay or have staid long enough for the fever to leave the system. I have been in the habit of driving cattle from Florida to Virginia, and found my cattle to improve and do well; but after I passed the line of 34 degrees, they began to spread the fever all along the line of travel among the stock raised in that section of the country, till I struck the line of Virginia, which is a distance of about 250 miles, then it ceased, and all went on well. I suppose the reason for its stopping was, that my cattle had been out of the low country long enough to become acclimated. Hence, I think the disease is originated from a change of

climate, either from a colder to a warmer climate, or taking them from a warm climate to a more cool and healthy one. How it is that they carry the disease with them, and give to others without injury to themselves, is a mystery I am not able to solve, and will leave that to be discussed by the bureau of investigation.

Respectfully,

I. WILKERSON.

Mr. White, the editor of the Cultivator, indorses Colonel Wilkerson as a man of experience and good judgment, whose statement of facts can be relied on.

From all that has been learned from this correspondence or from other sources, all medication has thus far proved entirely futile.

Without pretending to unravel the mystery of the terrible fatality of this disease, received through an animal that is apparently free from all maladies, we propose to give brief extracts from our correspondence on this subject, that readers may note for themselves the agreements or discrepancies of actual observers.

Texas correspondents are indignant in their comments on the Texas fever. One in Dewitt county says he has been in that State since 1849, and has never known any prevailing disease to exist among cattle there. He says there is sometimes a Spanish fever among horses, but never among cattle.

Another in Collin county says that cattle brought there from the north are subject to such a disease.

A correspondent at Goliad, Texas, deems the disease a myth, and says: "This tale was no doubt started to injure the sale of our cattle; but, strange to say, while our cattle have such terribly fatal diseases in the Indian Territory, Kansas, and Missouri, this pest never follows our stock to New Orleans. No single complaint of this fever has as yet reached us, from the Texas cattle bought low, at an overstocked market, in that city and taken up the river to be fattened and reshipped, as stall-fed western beef. I can see no excuse for these complaints, and can account for them upon no other ground than selfishness."

In Linn county, Kansas, it has been prevalent in summer and fall, but is seldom, if ever, known in winter.

In Butler county, Kansas, one hundred and forty-one cases are reported.

Osage county, Kansas.—"A disease made its appearance at Burlingame, in this county, about the 1st of August last, called by some Spanish fever; by some, dry murrain. Afterwards it prevailed in other parts of the county. It was principally confined to the Santa Fé road, which runs east and west through the county. Not one in twenty recovered. The damage from it could not be less than $5,000. Blooded stock were more frequently attacked, and rarely recovered. The usual remedies for murrain were tried, but were of no avail. After that medicines were given as experiments, but the cures were so few, if any there were, that nothing certain was established. The first symptoms were a moping and an apparent weakness about the loins. A high fever set in, and the animal kept on foot, eating and drinking as usual, until it laid down to die. Some were packed in wet cloths; some were drenched with salts; to some, sulphur, saltpetre, sweet spirits of nitre, lard, copperas, garlick, poke root, and other medicines, in indefinite quantities, were administered. Let alone was the best remedy. The animal died in about one week after it was attacked. There seemed no difficulty in getting physic to operate; the bowels were generally active and open. After death there seemed to have been a high fever in some locality; sometimes in the stomach, sometimes in the kidneys, sometimes in the lungs. As a general rule the stomach was dried up; the bladder full of red water, but not bloody. The eyes looked as usual, and the fore-quarters seemed strong. I account for the different appearance in different animals from the fact that injurious medicines of different kinds had been given to different animals

which I examined. All this stock had pure water and good grass. The first case that occurred was that of an ox, which belonged to a logging team of seven yoke. This ox, on account of his breachy propensities, was kept at nights in a stable, and watered from a well of pure water. When not at work in the day-time he was staked out to grass with a long rope. About two weeks before he was attacked with this disease a herd of Texas cattle came along and were stopped and fed around him for an hour or more. Soon after the rest of this team were attacked, and all died but one, which escaped the disease. Along the trail of this Texas herd, which left the Santa Fé road at Burlingame, and travelled north, almost every farmer lost stock. Cattle that belonged to Burlingame, and ranged north over this trail, nearly all died, while those which ranged south all escaped, though they were herded at night in the same yards. Another herd of Texas cattle passed through the county eight miles east of Burlingame, in another direction, and they left their trail, whole herds dying where they passed along. People here are unanimously of the opinion that the disease came from Texas. Cattle from the Cherokee country do not bring that disease. Neither do these cattle after they have been wintered here."

Leavenworth county, Kansas.—"Spanish fever was brought in by Texan cattle, but was confined to certain limits, on uninhabited Indian reserves, as the people would not allow any to be pastured around farms in the settlements. It appeared from three to four weeks after the Texas cattle came in, or passed by, among cattle that grazed on the same ground where the Texans had grazed over night, or staid for a greater length of time. It appeared in the latter part of July. The Texans arrived in June. At four different times in seven years this has been the case—always three or four weeks subsequent to the Texan arrivals. Loss, ninety-five per cent. of those attacked. Bleeding, cathartics, stimulants, hydropathy, &c., have been tried by multitudes. I have personally exhausted the whole range of cattle medicines, and lost very largely in 1857, 1858, and 1859, but found no remedy in any direction; in a word, there is none known. All were attacked that were exposed to the cause."

Woodson county, Kansas.—"The Spanish fever broke out in December, and raged until the 1st of January, when the cold weather set in and checked it. In the immediate localities where the Texas cattle crossed the country the losses were heavy. Some farmers lost all they had, and no less than thirty per cent. of the cattle have died. The methods of treatment have been various. I have treated the disease in its incipient stages, and have seen everything tried that ingenuity could devise. Calomel did no good; salts and alkalies all failed; soap I have seen tried with no satisfactory results. Guano, from the goose cot, I believe will frequently effect a cure, given in doses of one quart until a thorough evacuation is produced. This I know to be a sovereign and unfailing remedy for the dry murrain."

Douglas county, Kansas.—"The Spanish fever, or something similar, made its appearance about the first of February among a few cattle that were driven from the south. I think the severity of the winter caused the greatest loss; about one-third of all the cattle brought from the south have died. The only treatment was to give the weaker ones a little more care, and separate them from the stronger ones."

Fort Scott, Bourbon county, Kansas.—"The Spanish fever appeared during the first part of last May, about the time Texas cattle commenced driving, and continued all summer. Texas cattle did not appear to suffer any ill effect from the disease, but fully one-half of the native cattle in the county died with it. No remedy has been found for this disease."

Franklin county, Kansas.—"Within the last ten years we have had the Spanish fever in this county three times, and it is indisputable that in every case cattle from the south had been driven through our county. Yet I have frequently heard those who have resided in Texas say that the disease known

here as Spanish fever is unknown in the section they came from. I think it is generally admitted that it is only when cattle are driven in droves in hot weather that the disease manifests itself. The only steer I saved after being diseased by the Spanish fever was by soaking a large plug of tobacco till it became quite pliable, and then using it by injection. In the course of half an hour, by repeating the process several times, a passage was effected; the steer, in a few weeks, became quite healthy. In the cattle which have died of this fever the manifolds are as hard as a pressed cotton-bale. This, I think probable, is the difficulty to overcome."

Howard county, Missouri.—"There were a few cases of Spanish fever among cattle in this county, immediately on the public roads on which Texas cattle had been driven. No other disease. August was the month in which the above fever occurred. No treatment was instituted, and all died."

Cass county, Missouri.—"The Spanish fever appeared in July and August, after the passage of droves of stock from Texas and Arkansas. Some sections of the county did not suffer; others, through which the travel mainly passed, lost fully five per cent. of their stock. The loss throughout the county is fully two per cent. of the whole number of cattle. Various remedies were tried to save the sick cattle, but nothing found effectual."

Callaway county, Missouri.—"We lost some cattle last summer with the Spanish fever, immediately on the trail of a drove of Texas cattle that passed through our county. Almost every one living on the road where they passed lost more or less if their cattle ran outside or grazed on the same pasture or prairie; but it did not spread from those farms on the road. Almost all that were attacked died. We know of no cure for it."

Christian county, Missouri.—"Spanish fever was introduced into the western part of this county by droves of Texas cattle passing in October. Was very fatal, but did not spread over but a small portion of the county. No remedy applied."

Newton county, Missouri.—"The Spanish fever appeared about the first of July and continued until the first of October. Various remedies have been tried, but none proved effectual. The fever appeared to be caused by Texas cattle passing through the country. Many droves were stopped last summer by the citizens, and not allowed to pass until October. There was no sign of disease among the Texas cattle."

Bates county, Missouri.—"The Spanish fever is the only disease that has prevailed among the cattle in this section of the country. The disease is never seen until from ten days to two weeks after the passing through the country of Spanish cattle, which generally commences about the first of June and continues through the season. The loss in our county for the year 1866 will not fall short of sixteen hundred head. In some cases it killed entire herds. There is no effectual remedy known to the inhabitants of this county."

Chariton county, Missouri.—"The Texas or Spanish fever prevailed to some extent in our county on the road travelled by a drove of Texas cattle through the county, but the disease was not in other parts of the county. The number lost was about sixty. No remedy was discovered that tended to alleviate the disease. Nearly all the cattle attacked died in a short time."

Cedar county, Missouri.—"Spanish fever has prevailed wherever Texas cattle have passed, and attacks our native cattle directly, or soon after feeding on the same ground, in the spring, summer, or fall. It is thought that our cattle would not take the disease in the winter season, but this may only be conjecture, as no large droves have yet been driven here from the south in the winter. The loss is great—say eight-tenths. No remedy or treatment has yet been successful."

Oldham county, Kentucky.—"The Spanish fever was introduced into this county in June last by cattle brought from Texas by parties to sell to grazers.

I have not seen any of the diseased cattle this season. The number that died did not exceed fifty head, as the Texas cattle only passed through one corner of the county. The 24th day of June, 1860, there were driven on my farm, to stay over-night, some fifty head of Texas cattle. Some forty days after they left, about the 18th of August, the disease broke out among my milch cows and heifers and work cattle. I lost fourteen head, worth some seven or eight hundred dollars. At the same time I was grazing a lot of large fat cattle for one of my neighbors—some sixty head; out of the number, eleven head died, valued about the same as my own. This was the first appearance of the disease in this State. I tried all the remedies I could think of. Some of the diseased ones recovered, though I will not say what remedy reached the disease. Work oxen that crossed the road travelled by these cattle took the disease and died. In the last stages of the disease greenish and yellow matter exudes from the nose. The animal will live, in some cases, ten or twelve days after being attacked. This county has not been entirely free from the disease in the last ten years. Almost every farmer has a remedy of his own. I have had the disease in my herd twice; the first time I lost one hundred and fifty—nearly all I had."

Fayette county, Kentucky.—"Last summer my son bought at auction, in Lexington, twenty-four Kentucky raised cattle. Shortly after the purchase five of the cattle were taken sick, four of which died. It was ascertained that these five cattle had been driven along the road over which some Texas cattle had travelled. The former had been given green corn, and the one that eat freely of it recovered. They were all taken sick the same day, and the four died the second and third days after. None of the other cattle were affected, though all were in the same pasture. It is a well-known fact that Kentucky cattle pastured with, or shortly after Texas cattle, or driven along the road after them, will take this fever. It is believed, however, that Kentucky cattle will not take it from native stock. The Texas fever had been very destructive in the neighborhood from which these five cattle were driven to Lexington."

Grundy county, Illinois.—"My opinion in regard to the Spanish fever is, that there is no danger of that disease except where the cattle come in contact with the droves from Texas and the Indian country, more especially the region on the Red river. I lived some time on the route travelled by these droves from Texas to the Missouri river, and in all cases, when the Spanish fever made its appearance, it was when one of these droves had just passed through, and I never heard of a case where the cattle had not been exposed in this way. I never knew the disease to break out spontaneously in a herd of northern cattle; but after exposure it was always more fatal among them than among the Texas cattle; so much so that it was considered quite an object to obtain the Texas cattle in preference to all others for use, in those sections of the country that were peculiarly exposed to the disease by being on or near the route of the Texas droves."

Perry county, Illinois.—"In the southern part of this county Spanish fever appeared in July last, among cattle that were pastured on ground that had been previously occupied by a drove of Texas cattle. The loss was about seventy head. Various remedies were tried, but none of them were effectual. I understood that all the cattle were attacked with the disease that followed the Texas cattle in the pasture, and that all that were attacked died. It appears also that the Texas cattle, while feeding in the pasture, had no appearance of disease."

STARVATION.

In a land where scarcely half the growth of grasses is depastured, it seems little less than deliberate wickedness, and something more than downright inhumanity, that domestic animals should die by thousands of starvation. Because some winters are so mild that the poor cow shivers through them without actual

starvation, whole communities leave their cattle to shift for themselves every winter, until one of such severity as the last takes pity on their misery and mercifully ends it. The loss from actual starvation and exposure the past winter has been extraordinary.

In the mild climate of Texas the loss has been heavy. In Houston county one-tenth of the stock died during the winter from "cold weather and poverty." Other counties made simular reports.

In the Territories similar losses are reported.

In Hall county, Nebraska, one-tenth of the cattle perished during the winter "in consequence of the ground being covered with snow from the middle of December until the first of April."

In Mississippi county, Arkansas, "one-fourth died of starvation in consequence of inundation."

In Houston county, Minnesota, "there has been no disease among the cattle, but many are dying for want of proper feeding, in consequence of the failure of the corn crop. Hay is scarce and farmers have depended on straw, as usual, and the quality of the latter is quite poor."

In Pocahontas county, West Virginia, "many cattle died from exposure."

Such is the tenor of letters from the south and the younger States of the west. The aggregate loss must amount to an immense sum, and most of it was plainly avoidable with proper expenditures of foresight and industry.

DISEASES OF HORSES.

Horses have suffered comparatively little from disease during the past year. Very few cases of disease are reported from New England. In the middle States, reports of glanders and lung fever are made from a few counties. In the south there is more complaint of glanders than elsewhere, every State having been afflicted by it—in some places with great severity—early last season. This disease seemed to be a legacy left by the war; but it is now rapidly disappearing. West Virginia, Michigan, Minnesota, Iowa, and Kansas, appear to be nearly free from disease; while the central States of the Ohio valley furnish occasional instances of glanders and lung fever. In Texas several counties have suffered from "loin distemper,' which does not affect geldings, though both sexes are subject to it.

In Addison county, Vermont, an unusual disease made its appearance, introduced by a span of fine horses from Boston. A correspondent says: "The horses must have taken the disease on the cars, for they left no traces of it in the stable from which they came. It was but a few days since that I learned anything of it; it is represented as taking the flesh off rapidly. It passed through a stable of twelve horses, owned by the man to whom the Boston horses were sent, and has now made its appearance among the horses of his near neighbors. I do not learn that it has proved fatal in any case. Its name and character, as well as treatment, are yet to be developed."

In Morris county, New Jersey, several horses died "from a disease supposed to be pleuro-pneumonia." All the cases proved fatal.

In Jefferson county, New York, a "horse distemper" is prevalent, but not very fatal.

A mortality, estimated at one-third of the colts foaled this spring, in Ozaukee county, Wisconsin, is reported. The disease is attended with swelling of the joints.

In Grant county, Wisconsin, there have been instances of a disease of the eye.

The "big-head" prevails among horses in Pulaski county, Illinois.

In Clinton county, Illinois, about two hundred of the best horses "have died of a new disease. The horse becomes very sick, with quick breathing and pulse, and cold extremities, followed by death in twenty-four hours. No remedy

has been found." A loss of eighty-seven horses from "big-head" is reported in the same county.

In Miami county, Ohio, a fatal disease prevailed last year, but horses are now healthy.

In Van Buren county, Michigan, deaths have resulted from a disease attended with swelling of the legs, head, and jaws, and with running sores.

Colic has proved fatal in St. Charles county, Missouri.

In Knox county, Kentucky, a fatal disease has prevailed "without any perceivable cause."

Lock-jaw and "lung disease," fatal in a few cases, are reported in Kent county, Delaware.

In Henderson county, Illinois, many horses have died—thirty in Oquaka—from a disease which appeared to be contagious. It was supposed to have originated in a pasture of new bottom land.

In Racine county, Wisconsin, a disease, somewhat resembling diphtheria, attended with a swelling and inflammation of the glands, and great prostration, has been prevalent. It generally yielded readily to remedial measures.

In Burton county, Georgia, several horses and one hundred mules died from blind staggers. There was a considerable loss of horses, "mostly for want of corn," while in Taylor county, Georgia, and Yalabusha county, Mississippi, many horses and mules died in consequence of feeding on "shipped" or "up country" corn, which had been damaged.

DISEASES OF SHEEP.

Sheep have suffered more from disease the past year than usual—more than cattle or horses, but less, probably, than hogs. The rot, formerly almost unknown in this country, is becoming quite too common for the comfort of wool-growers; yet few reports of this disease have been received, except from the south. New England presents a clean bill of health, except in some sections of Vermont and Massachusetts, where foot-rot and grub in the head are reported. In New York, either grub, foot-rot, "hoof-ail," black tongue, scab, or other diseases, are found in nearly one-third of the counties represented. In the west, scab is more prevalent, and very common in the south, particularly in Texas. Nearly half of the counties of Iowa report some form of disease, of which scab is the most common, with occasional mention of "yellows," "dropsy," and grub.

Poverty and exposure have done their work in many sections of the south, and, to some extent, in the west. In the most northern States, the sheep have wintered best; in the most southern, as Texas, the loss from exposure has been greatest. There is no doubt that the cost of adequate shelter for all the unsheltered sheep of the country could be easily defrayed by the value of sheep and lambs killed by exposure during the past winter. The severity of the season has been an expensive lesson to wool-growers in low latitudes, which will be worth its cost if it shall result in ampler protection, and more liberal supplies, for the rougher periods of a fickle climate.

The following epitome of correspondence will illustrate the various tenor of the information received:

Berkshire county, Massachusetts.—One in every twenty have the foot-rot.

Forest county, Pennsylvania.—A very destructive disease prevailed among sheep, whereby one-third died. Disease not known; but it appears to be something like consumption.

Niagara county, New York.—Grub in the head prevails; one flock lost one hundred, others ten to sixty.

Kent county, Delaware.—Rot exists in this county, and there has been a loss of young lambs from exposure.

Clinton county, Iowa.—Half the lambs lost from cold storms.

Miami county, Ohio.—Fifteen per cent. loss in wintering.

Lorain county, Ohio.—Heavy losses have resulted from rot. Livers light-colored and quite rotten.

Hardin county, Ohio.—Old sheep have done well, but half the lambs were lost.

Medina county, Ohio.—Sheep are in poor condition; one man lost one hundred, half his flock; another eighty, others sixty each. In this county 8,000 perished in the cold storm of June last—535 in one township.

Nicollet county, Minnesota.—Six per cent. loss from rot.

Livingston county, Illinois.—Losses of 200 to 300 head are reported.

Lycoming county, Pennsylvania.—"Two and a half per cent. of our sheep died, attacked with a swelling under the jaw. They moped around four or five days and died."

Madison county, Virginia.—"The rot has prevailed among the sheep. In some cases entire flocks have been destroyed. The loss has been excessive. No remedy."

Polk county, Tennessee.—Rot has destroyed three-tenths of the sheep.

Attala county, Mississippi.—"Sheep die from eating sneeze-weed. What is the remedy?"

Collin county, Texas.—Two-thirds of the sheep of this county have died with the scab, or from exposure.

Houston county, Texas.—Three-fourths of the lambs have perished.

Bell county, Texas.—Sheep and lambs have died from exposure.

Blanco county, Texas.—Some flocks have lost half from exposure.

Conecuh county, Alabama.—One-tenth lost by the rot.

Guthrie county, Iowa.—The sheep of this county are dying off rapidly. The first symptom noticed is a general weakness or giving way of the limbs, followed soon after by death, mostly among the rugged and robust sheep. After death the carcass is found full of small mattery pimples, (white.)

Niagara county, New York.—Scab and foot rot prevail to some extent, and are on the increase. Our principal correspondent thus writes of a disease affecting lambs: "First the ears begin to droop; then the eyes begin to run, first a thin watery discharge, which changes, as the disease progresses, to a thick white matter; often the lamb appears to be blind. The nose also discharges first a thin whitish mucus, which gets darker colored, and often tinged with blood; the lamb becomes weak and falls over every little stick or cornstalk, and they will often live two or three weeks after they are unable to get up. I heard one man say he had one he thought dead, and threw it back on a pile, and after it had lain there ten days he had occasion to remove them, and he found the lamb still alive. This disease rarely attacks any but tegs, though occasionally a yearling is taken and dies. I have bisected the head after death, and found from five to fifteen grubs, about from five-eighths to nearly one inch long, yet that this is the cause of the death I cannot say positively. Lambs have been troubled in this way only once before, and that in the winter and spring of 1860. In this county, in the aggregate, the loss must be many thousands, as my assistants represent it as prevailing in their sections."

Wayne county, Indiana.—"Sheep are a little below average, in condition, having been allowed out in frosted pastures later than usual. Keeping stock out late in the fall because freezing weather does not drive them in for shelter, with their pleading looks calling for food, is, in my opinion, *cruelty and poor economy.* If nature's store of fuel (fat) for cold wintry days is early drawn on, it must sooner become exhausted, and the unthrifty, apologetic term, 'spring poor,' be loudly sung by shiftless husbandmen."

Winona county, Minnesota.—"One farmer lost five hundred of his sheep, and was so badly discouraged that he sold the remainder of his flock for $1 50 per

head. The disease is new to me. The head of the sheep would swell, and in a day or two the sheep would die, eating well almost to the last."

A correspondent in Cumberland county, Virginia, thus pictures the condition of sheep in that section: "There are a few animals here, called sheep, with long legs and tails, and long necks, that are turned out into old fields to shift for themselves winter and summer. They have no winter quarters except such as the thickets of pines give them; are rarely seen, and never fed, except it may be with a little fodder, when the snow covers the ground, and scarcely ever noticed but when a little wool is needed to be pulled or cut from their backs. And this is the treatment of this most valuable animal in a county that will grow turnips in the greatest abundance, and certainly, as proved by the last summer, when we had no more rain than would wet a pocket-handkerchief, from the middle of June to the last days of August, and yet fine turnips were grown wherever any suitable preparations were made."

Walworth county, Wisconsin.—"Foot rot is quite common, but is now so well understood and successfully treated that but a small per cent. of those attacked are lost. There are some cases (isolated) of *liver rot.* But there is a far more subtle and generally prevalent disease among the sheep than either of the above, termed "goitre," a well-known disease of the throat, and seems to be of a scrofulous character, which is widespread and very destructive, especially to lambs. This disease is new in this State, and appears to have originated from the use of high bred, and possibly 'in and in bred' bucks from the east, mostly Vermont. Its effect is more apparent in lambs at birth, and is marked by one or oftener two enlargements of the neck, and appears to be an enlargement of the thyroid gland, and not unfrequently of the whole thyroid cartilage. The lambs thus affected are weak, seeming to be more affected in the neck than body; and in many flocks a large per cent. are lost (in some cases seventy-five per cent. and over) from this disease. Mature sheep are not so much affected, or, at least, not in so marked and fatal a degree. Though some flocks are rapidly deteriorating from this cause, the disease, I fear, has not reached its climax. At present it threatens great damage to flocks, and seems to indicate a degree of loss far exceeding all the profits arising from the introduction of *improved* sheep. So far the disease is confined wholly, I believe, to the Vermont Merinos."

Bexar county, Texas.—"Sheep wintered well, but there was some loss from severe weather in the early part of this year, where sheep had no protection. The loss in my flocks in Bandera county, during the winter, was about twenty sheep; about one per cent. My sheep were not housed, but the pens were in a situation where the north and east winds were not much felt. I will remark that I used, during the winter, four tons of hay, cut from open lands on my estancia, which was a larger quantity than I have had put up any year of the five I have been in the business."

DISEASES OF HOGS.

Almost all the diseases of swine seem to be popularly resolved into "hog cholera." Of all diseases of domestic animals, those of this genus are evidently less thoroughly understood than that of any other farm stock. Ideas on the subject are in a singular state of confusion, and remedies are countless in number and most incongruous in character. If the symptoms were accurately noted, it would probably be found that several kinds of "hog cholera," as every prevalent disease of the hog appears to be called, are uniting in the mischief produced.

The New England States report no hog cholera, except a very little in Middlesex county, Massachusetts; New York has but little; several counties in Pennsylvania are afflicted; in the southern States half the counties report it, Georgia, Mississippi, and Tennessee having very few counties free from its influence, while the valley of the Ohio is overrun with it, Ohio suffering less than the other corn-growing States, and Michigan and the northwest nearly exempt.

In one locality in Tennessee erysipelas is named as an additional cause of loss, and "black tooth" in Wisconsin, and measles in North Carolina.

An idea of the alarming aggregate of loss may be gained by a reference to a few of the items showing the proportion, value, or number of the stock lost in separate counties. These, it is true, are selected from the worst cases, as follows:

Cambria county, Pennsylvania.—Sixteen per cent. died.

Lycoming county, Pennsylvania.—1,000 died.

Page county, Virginia.—Fifty per cent.

Floyd county, Virginia.—Three-fourths of the hogs died.

Roanoke county, Virginia.—Loss one-fourth of the stock.

Scott county, Virginia.—One-half lost.

Washington county, Virginia.—One-third lost.

Montgomery county, Virginia.—Two-thirds of the entire stock died. "I fed my hogs on a pile of wood ashes every day, salted regularly, and occasionally gave copperas and sulphur, and had no cholera among my hogs."

Craig county, Virginia.—Nearly all died in some parts of the county.

Cherokee county, North Carolina.—One-third died.

Caldwell county, North Carolina.—Loss twenty per cent.

Davie county, North Carolina.—Twenty per cent.

Barnwell district, South Carolina.—Loss on some farms eighty per cent.

Marion district, South Carolina.—Loss twenty-five per cent.

Warren county, Georgia.—Twenty-five per cent.

Taylor county, Georgia.—Loss twenty per cent. In some former years fifty per cent. Farmers have almost abandoned hog raising. If one recovers, it costs more to fatten him than he is worth.

Lumpkin county, Georgia.—Loss twenty-five per cent.

Clay county, Alabama—One man, with a herd of 174, lost all but eighteen.

Marshall county, Alabama.—Loss between 2,000 and 3,000.

De Kalb county, Alabama—Loss 500.

East Feliciana parish, Louisiana.—Loss twenty-five per cent.

Avoyelles parish, Louisiana.—Loss thirty-three per cent.

Williamson county, Tennessee.—Loss twenty-five per cent.

Robertson county, Tennessee.—Some farmers lost nearly all. Worst on water courses.

Union county, Tennessee.—Seven hundred died, valued at $5,600.

Polk county, Tennessee.—Loss twenty per cent.

Montgomery county, Tennessee.—It has been difficult in some neighborhoods to raise enough for family pork.

Knox county, Tennessee.—Loss sixty per cent. of all the stock.

Jefferson county, Iowa.—Loss fifteen per cent.

Jersey county, Illinois.—Loss 2,000 head.

Lake county, Illinois.—Loss twelve head.

Putnam county, Illinois.—Most of the young pigs have died this spring.

Alexander county, Illinois—Loss fifty per cent.

Crawford county, Illinois.—Loss forty per cent.

Clark county, Missouri.—Loss fifty per cent.

Kenton county, Kentucky.—Loss 4,000 to 5,000.

It is unnecessary to continue the enumeration. In Kentucky the estimates of loss in different counties range from three to forty-five per cent. In Rock Castle county the damage is placed at $10,000. The disease has been very severe in many portions of Indiana and Illinois. A few extracts from letters will show some peculiarities of the disease or its treatment.

Indianapolis, Marion county, Indiana.—Our correspondent (Fielding Beeler) believes that twenty per cent. of all the pigs produced in the last five years have perished from disease before reaching the pork barrel. He doubts the existence of any certain remedy, but thinks some of the agents employed may act

as preventives. He says: "I have never met with any case in my observation in which fully developed and well defined cases of cholera have been cured. It is true, no doubt, that hogs with cholera have been dosed and got well. It is also true, that they sometimes get well without being doctored at all. There are sometimes circumstances which seem to indicate that some farms, either from preventives used, or some other cause, were exempt from its visitation; but suddenly, without any apparent reason, it rages more violently and fatally there than any other place in the vicinity. I will give you a case in point, (one of several similar ones which occur to my mind.) The owner of a large farm in an adjoining county has been in the habit of feeding about 150 head of hogs of his own raising every fall; his hogs were noted as the best in the county. The farms adjoining his had frequently been scourged with the disease, but his had always escaped, until he had come to believe that it was on the account of something peculiar in his location, and in his care of his hogs, and the belief in his neighborhood had become general that he was possessed of some preventive unknown to others. About the first of last September the cholera broke out among his hogs, and out of about 300 head, 150 of which were then about ready for the butcher, he had not enough left to make his family pork.

"A case in point as to cures. A farmer was feeding, in the fall of 1865, upwards of one hundred hogs in one lot, when the cholera, or what was considered cholera, made its appearance among them, and several had died, and others were sick, when he was told that stone coal was a remedy. He immediately procured a load and threw it to his hogs, when, to his surprise, the disease disappeared; there were no more new cases, and those already affected recovered, and left my friend in the firm belief that stone coal was a certain remedy. In the fall of 1866 the same man purchased one hundred head of hogs, (then in good condition and apparently healthy,) and took them to his farm to fatten; the next day after reaching home with them they began dying, when he immediately began feeding stone coal as before, but they continued to die till sixty out of the one hundred were dead. The substances most generally used as cures or preventives are sulphur, black antimony, rosin, turpentine, crude petroleum, stone coal, charcoal, ashes, salt, &c. I fatted a lot of hogs last fall, to which I fed the ashes from a neighboring steam mill, where a mixed fuel of wood and coal was used, among which there was a considerable amount of both stone coal and charcoal, which dropped through the grates without being consumed. I am satisfied that it was good for the hogs, and they seemed very fond of it; when they had had none for a few days they would eagerly follow the wagon for it when it was driven into the lot where they were being fed; still I would by no means recommend it as a certain preventive of cholera."

Hancock county, Illinois.—"Hog cholera has prevailed to a considerable extent in the last five or six years, and the yearly loss has been at least twenty-five per cent. In regard to remedies, all the usual ones recommended have been tried, but none of them proved certain as preventives or cures. Mr. William Wack, an observant and wealthy farmer living in this county, has discovered a cure which he considers certain. Last spring his herd were attacked with the disease, and, notwithstanding he used all the usual remedies, he lost many. A valuable sow, which he was anxious to save, was attacked with the disease in its most virulent form, and, for the purpose of giving her better attention, he put her in a lot by herself; but the disease progressed until she was in the 'last stage.' A cow in an adjoining lot had just dropped her calf, and, as her udder was very full, Mr. Wack drew the milk into a bucket, and gave it to the sick sow. Three or four hours afterwards he was astonished to find the animal eating food, and apparently free from the disease. He could conceive of no other cause for this sudden change than the fresh milk she had drunk. Having ten pigs in a pen having the disease in different stages, he gave them to drink freely of fresh milk, and all of them rapidly recovered. He then se-

lected all that were affected with the disease, and treated them in the same way, and the result was the same; and not a hog has been lost by the disease on the plantation since that time. Mr. Wack is satisfied from these tests, and from others since made, that sweet milk is not only a preventive but a certain cure for hog cholera."

Macomb, McDonough county, Illinois.—"It is as great a mystery as human cholera. Hogs on high ground, well ventilated, perhaps suffer less than those differently cared for. And I am not sure, even, that this is true; for I myself lost one hundred out of one hundred and fifty in a thirty-acre timber lot, which embraced a high knoll, and was well watered with a running stream."

Moultrie county, Illinois.—"Hog cholera: loss at least forty per cent. of the hogs in this county. Best remedy found is—calomel, one ounce; arsenic, two ounces. Give the above in corn-meal swill to twelve hogs in the evening; follow next morning with one pound sal soda to eight gallons of slop, (wood ashes will do.) After the medicine has thoroughly worked off, give a teaspoonful of copperas each day to each hog for a few days."

Rock Island county, Illinois.—"My hogs were dying at the rate of from five to eight per day with cholera, when I gave to every twelve one quart of common lye mixed in ten quarts of milk, and not one died after that day. The milk was given to induce the hogs to drink the lye."

Alamakee county, Iowa.—"After losing about a dozen hogs by hog cholera, I removed the remainder to a small grassy enclosure, and bought five pounds of sulphur, two pounds of saltpetre, and two barrels of charcoal, upon which I fed them freely by placing the mixture in the trough with a liberal supply of salt and ashes. The hogs eat it freely, and I lost no more hogs or shoats. One fine hog was so much affected by the disease that it could not be induced to move for its feed or water. I carried her some milk with the above remedy in it. She drank it, and the next morning appeared well."

Davidson county, Tennessee.—"The hog cholera has generally prevailed, and, from the best information at my command, at least one-fourth of the swine of this section have died of the disease within the past twelve months. Various remedies have been tried; but I have succeeded best by putting the afflicted hogs into a dry pen, and administering alkaline preparations. Corn rolled in strong wood ashes, or boiled with ashes, seems to have a good effect. Pine tar on the food is a favorite remedy."

Morgan county, Georgia.—"The hog cholera has prevailed very generally throughout the county, some farmers losing almost their stock of hogs. So destructive has this disease become that a great many will abandon pork raising, and depend on the north and west for their supply. Four hundred hogs died on one plantation. Average annual loss fully fifty per cent."

Amite county, Mississippi.—"Hog cholera has prevailed here to some extent, confined principally to the young hogs; the loss supposed to be at least one-fourth of that class of hogs. The treatment that proved most effectual was a solution of salt and water, in which was incorporated a small portion of sulphur and lard; but with all the attention we could give, many died."

Attala county, Mississippi.—"We have had some hog cholera, and our farmers lost from twenty to eighty per cent. But few have escaped loss to some extent. All remedies used years ago failed, and none now known except green sorghum, which, of course, can only be procured at certain seasons of the year."

Washington county, Mississippi.—"There has been some hog cholera in this county, but not very destructive. Loss in the county about three hundred head. The only remedy I know of is to give the animal plenty of salt and wood ashes."

White county, Arkansas.—"Having lived in the great hog-raising country south of the Green river, and having frequently suggested remedies for the cure and prevention of the disease known as hog cholera, I am convinced that I have

at last found an effective remedy, one which I have never known to fail in a single instance when constantly used, though the hogs frequented herds in which the disease prevailed. The remedy is simply to boil the corn (shelled or in the ear) in hickory wood ashes, and feed it to the hogs every morning while the disease is in the vicinity. The hogs will thrive under it whether diseased or not."

Tippah county, Mississippi.—"Loss from hog cholera twenty-five per cent. of the entire crop of last year, and a still larger proportion has been lost in former years by this dreadful malady; since 1855 it is estimated that the loss from this disease alone has been fifty per cent. annually, not in the same proportion, however, every year. All treatment futile."

Winston county, Mississippi.—"The loss from hog cholera must be near one-third of the hogs in the county."

Mississippi county, Arkansas.—"Dr. A. M. Johnson, who has practiced in this State and Illinois through several seasons of Asiatic cholera, says he has never known hog cholera to prevail during the existence of that epidemic."

Remedies.—The general testimony is, that medication is useless. As a preventive, many are hopeful of the influence of a favorite remedy. Yet they often find their care for prevention utterly valueless. Some correspondents offer "sovereign remedies." The recommendations, when considered in the aggregate, would deplete a well-stocked apothecary shop. It may serve to amuse, if it does not instruct, to refer to the formidable list, which is, in part, as follows:

Copperas, sal soda, saltpetre, ashes, salt, soap, gas-lime, coal oil, tar, bituminous coal, charcoal, lime, ley and milk, sulphur, sulphate of iron, black antimony, calomel, podophyllum, opium, arsenic, corrosive sublimate, sulphate of zinc, alum water, spirits of turpentine, smartweed tea, soapsuds, poke root, tobacco and persimmon bark, assafœtida, mandrake, garget root, &c.

HARVEST PROSPECTS.

Never has there been so general an expression of encouragement, in view of the fine condition of winter wheat, since the establishment of the present system for the collection of crop statistics. In more than nine-tenths of the returns received, the condition of the crop is reported favorable and promising. From the south the returns are as cheering as from the west.

Here and there it is stated that a smaller breadth, from lack of labor or from bad weather in the fall, was sown or drilled. In a few places winter-killing is reported.

The following are among the drawbacks reported:

Morrow county, Ohio.—But half a crop was sown in consequence of a wet fall.

Outogamie county, Wisconsin.—Winter-killed on old ground, but escaped on new ground.

Ottawa county, Michigan.—Badly frozen for want of snow.

Randolph county, Illinois.—From the 12th to the 18th of March there was heavy frost, which froze out the wheat.

Richland county, Illinois.—Winter-killed—half a crop expected.

Henry county, Ohio.—Early sown did well—the late was killed.

Livingston county, Michigan.—But little killed.

Marshall county, West Virginia.—Wheat is fine, although the alternate freezing and thawing of March was severe.

Washington county, Illinois.—Winter-killed—half ploughed up.

Lawrence county, Illinois.—Wheat injured from freezing during March.

Bell county, Texas.—Injured by freezing.

Linn, (and other counties,) Kansas.—Destroyed by grasshoppers.

On the contrary, many correspondents promise an extraordinary crop, some of them double the usual quantity.

The Pacific coast forms no exception to the general expression.

A correspondent in Salem, Oregon, says: "We have had a remarkably fine winter, and all growing crops are in splendid condition. There has been little snow or cold weather, and at no time, thus far, has ice formed to the thickness of a quarter of an inch. Upon the whole, I consider Oregon the finest country and climate in the United States."

AMOUNT OF WOOL ON HAND.

As the result of general inquiries relative to the stock of wool on hand, it is found that in most localities the greater portion was sold during the year. Yet a considerable quantity remained on hand at the time of the passage of the late tariff, the most of which has since been sold by farmers. In many places but two to five per cent. of the clip was reported in farmers' hands. In some places ten per cent. or more; in a few others twenty-five to fifty per cent.

In Franklin county, Massachusetts, three-fourths of last crop, and half of that of 1865, are reported on hand; $1 05 per pound having once been refused for some of it.

In Tompkins county, New York, more wool was held over than usual. Some have their whole clip.

In Eau Claire county, Wisconsin, "all of last year's and much of three years' clip"

THE "RAMIE."

Letters have been received in the department relative to a fibrous plant called "Ramie," or the *Boehmeria tenacissima*, which was introduced in March from Mexico into New Orleans, where it is said to be growing finely. It was introduced into Santocomapan, near Vera Cruz, twelve years ago, as is claimed, by Benito Roezl, an Austro-Belgian botanist, and propagated extensively.

A paper has also been received upon the same subject, which was read by A. B. Bacon before the New Orleans Academy of Sciences. Mr. Bacon, in a letter dated April 30, says of his experiment with a specimen: "I put the root in the ground in my garden March 23. The plant is now about four inches high, and seems to grow vigorously."

Another gentleman, in a second letter from New Orleans, says: "It is claimed here that it is impossible to propagate it from seed, but that it can be propagated from cuttings. From other sources I am led to the belief that this latter idea, at least, is erroneous."

It seems to be creating a local sensation, and to be generally regarded in that quarter as a new discovery fraught with good to the south. It may possibly prove to be agriculturally remunerative. There is no doubt of its great excellence and value as a fibre. But it is to be hoped that those interested in propagating it will descend to no mystification of the public as to its character and identity.

It produces a fibre well known commercially, for an indefinite period wrought into fabrics of great beauty and strength in all the principal countries of the east, and for many years manufactured in Great Britain. It belongs to the nettle family, *(Urticaciæ,)* and this species is now known as *Boehmeria*, and was christened by Dr. Roxburgh, an eminent botanist, *B. tenacissima*, from its toughness. Other botanists gave it the name *B. nivea*. Sir William Hooker declared positively that the names were synonymous; that the plants so named were identical. Dr. Shaeffer, librarian of the Patent Office, who wrote in the Agricultural Report of 1855 concerning it, still regards the *B. Nivea* and *B. tenacissima* as identical. If it were conceded that they were sub-varieties of the same species, it would not be a practical difference; for the fibre is the same, its uses and price the same, and the fabrics manufactured from it are known as

China-grass textures, of which some fine samples may be seen in the museum of the Department of Agriculture, manufactured in England. In China the common name of this plant is "chou-ma;" in Japan, "Tsjo;" in Sumatra, "caloee;" in Malacca, "ramee" or "ramie;" in East Celebes, "gambe;" in Assam, "rheea;" in Bonona, "inan;" and in other places it is known by different names. There is a slight difference, as to coloring of leaves and downiness of surface, in different climates and localities; but the balance of authority among botanists seems to declare these differences too small to warrant even a separation into varieties.

In the report of agriculture for 1865 will be found an essay on this fibre, with a brief history of the introduction of the plant into the botanic garden of the United States in this city, in 1855, by the superintendent, W. R. Smith, who obtained it from Jamaica, through Mr. Wilson, of the government gardens of that island, and propagated, under glass, about fifty plants *from the seed*. Mr. Saunders, at the experimental garden of this department, has also grown them, and now has them in his garden.

Mr. Bacon, in his recent paper on the ramie, or rami, says, relative to its propagation by Mr. Roezl:

"The ramie, as Mr. Roezl informs us, is planted like sugar-cane, by laying the stalks or canes about two or three inches under the prepared earth in rows. The first crop from this planting will reach only two or three feet in height, when it will be found ripe for the knife, and should be cut close to the ground. These stalks will not produce the thread in perfection. From the stubble thus cut new plants will rise and attain a greater height, and be cut in a like manner again and again, until, in Santocomapam, Mr. Roezl takes off five crops in each season; the plant when well rooted reaching the height of twenty feet, each crop being equal to one of hemp as cultivated in Europe. It is his opinion that in this country Florida, Louisiana, and the middle and southern portions of Georgia, Alabama, Mississippi, and Texas are alone suited in climate to its profitable growth; and that here from three to four crops of it may be made in each year.

"The plant, when once rooted in the soil, is exceedingly hardy, and in this climate a perennial one. It will be greatly benefited by cultivation; but neglect will not endanger it. It has no insect enemies dangerous to its growth or existence. If, when ripe for the knife, the cutting of it is delayed through any fortuitous circumstance, it is not injured by standing. The machinery invented by Mr. Roezl for cleansing it may be provided at a very moderate cost, and is simple and comparatively light of carriage.

"It remains only to add, as to its practical value, that in 1865 Mr. Roezl sent fifty tierces, containing over five thousand Spanish pounds, of the textile to England, and that it was there sold at double the price of the best quality of cotton. Fabrics woven from it will be exhibited in the approaching world's exhibition of Paris, woven in the looms of Lyons, Belgium, and England. Its great productiveness will, doubtless, in the end reduce the cash value of it in the manufacturing markets; but with it that of cotton, linen, and other rivals."

NORTH CAROLINA.

Daniel R. Goodloe, esq., United States commissioner for North Carolina, communicates the following:

Perhaps no State in the Union is so remarkable for diversity of climate, soil, and productions as North Carolina, and no other has such variety of productions. The breadth of latitude covered by its territory is not great, being only 2° 40′; but in its length, from east to west, it stretches from the sea-board to the highest summits of the Alleghany range of mountains, a distance of five

hundred miles, and embraces three zones, greatly varied in character and temperature by differences of elevation. The lower zone is mostly a flat sandy region, in many places covered with swamps or "pocoson," which, however, are above the sea level, and therefore susceptible of easy drainage. These swamps are all valuable for their timber, and some of them for the fertility of their soils. The dry land is covered with timber, for the most part pine, which is highly valuable for the yield of turpentine, rosin, and tar, as well as lumber. The soil is generally light or thin; but there are many exceptions to this rule, while there are in many places inexhaustible beds of marl underlying this region, which can be drawn upon with facility for enriching the surface. This eastern or lower zone extends to the foot of the first range of hills, a distance of eighty to one hundred miles from the sea-shore, and comprises about one-third of the State. There are few portions of the Union which offer greater inducements to the capital, enterprise, and skill of the people of the north than the eastern portion of North Carolina. Its agricultural productions are valuable. They consist of Indian corn, wheat, oats, Irish and sweet potatoes, cotton, rice, peas, beans, sorghum, grapes, and a great variety of garden products. This region is the peculiar home of the sweet potato, which is produced in no other part of the world in such abundance, and of such superior quality. The county of Edgecomb, near the western boundary of this immense plain, is famous for its cotton crops, which have been produced by the use of marl, found under the soil. The Roanoke bottoms are unsurpassed for fertility, and are cultivated chiefly in grain. Some of the largest grain crops in the world are produced in this section of the State. We have heard of crops amounting to one hundred thousand bushels of corn. Great facilities exist for transporting the grain of this region to the northern markets. The vessels approach the farms directly, and receive their freight at first hand from the farm wagons, which fact is of the greatest importance to the producer. The southeastern counties, among other things, produce rice; but this product belongs more peculiarly to South Carolina.

It is unnecessary to dwell upon the importance of the cotton crop. The southern planters grew rich by its production when the price of the article was scarcely one-third what it is at present, after due allowance is made for the depreciated currency. There is no danger of an excessive production for some years to come; and whoever employs capital with energy and skill in the growth of cotton, in any proper soil south of the thirty-sixth parallel of latitude, is sure to be richly rewarded. The true gold field is the cotton field. In the extraction of turpentine, rosin, and tar from the pines of North Carolina, and in the sawing of lumber for the northern markets, there are other inexhaustible fields of enterprise, which are sure to reward those engaged in them with liberal profits. This branch of industry is peculiarly inviting to northern capital and skill. The pine regions are healthy; northern laborers may be introduced without risk, and the processes are of a character to admit of improvement. Yankee ingenuity could scarcely fail to invent new and cheaper methods than those employed by the unskiled natives.

We must next notice the midland region, extending from the districtj ust described to the mountains; in other words, from the foot of the hills on the east to the foot of the mountains on the west. This zone is described by Professor Emmons, the State geologist, as a table land, with an undulating surface, but with an average elevation of several hundred feet. Raleigh is some 200 feet above the sea level; Greensborough is 846 feet above tide water. The rivers which rise in the mountains, and pass their waters to the ocean through this elevated district, nearly two hundred miles in width, necessarily furnish great facilities for manufacturing. The falls of the streams are innumerable, and "water power" without limit is distributed over every part of its surface. The surface, where not cleared for agricultural purposes by the sparse population, is

everywhere covered with forests of oak, pine, hickory, walnut, maple, beach, chestnut, and other trees; and, in a word, the traveller nowhere perhaps in the United States sees so much forest as in North Carolina. The productions of the middle region are Indian corn, wheat, rye, oats, buckwheat, barley, Irish and sweet potatoes, apples, peaches, pears, grapes of several indigenous varieties, tobacco of the best quality in the northern tier of counties, and cotton in all south of them, besides garden products of every kind, and many other articles. This midland region also has valuable mines of gold, coal, iron, and copper; and no part of the world is more blessed with health. The water everywhere gushes pure and perennial from the earth, in all this upland region, and a majority of the inhabitants drink it from springs, without being under the necessity of digging wells. The country is at the same time beautiful, and abounds in groves of white oak which are scarcely equalled in picturesque effect by any on the continent. The soil is generally good, though not equal to that of the Mississippi valley; but it amply rewards the labors of the husbandman. The climate is a delightful mean between the extremes of cold and heat north and south; and, on the whole, there is no part of the world in which a virtuous, intelligent, and free people may enjoy greater happiness, or more uninterrupted prosperity, than in the middle region of North Carolina.

The following meteorological observations, for a series of years, made at the university situated at Chapel Hill, near the centre of the State, will convey a general idea of the climate. We find the statement in the North Carolina Advertiser of a recent date:

"In 1850–'51, (counting from June to June,) the annual thermometrical *mean* (the result of three daily observations) was 60.40 degrees. The hottest day was July 1, 1850—the mean temperature being 85 degrees; and the coldest, February 5, 1851—the mean being 23.625. The first frost fell on the 21st day of October. The peach flowered February 28; cherry, quince, and apple, March 15.

"In 1851–'52 the annual thermometrical mean was 58.50 degrees. Hottest day, July 27, 1851, with a mean temperature of 89.5; and coldest, January 20, 1852, with the extraordinary mean for this latitude of 12.25. First frost, October 24. Peach, cherry, apple, and pear bloomed March 1, 6, 12, and 15, respectively.

"For 1852–'53 the annual mean was 59.15 degrees. Hottest day, June 17, 1852, with thermometrical mean of 83.75; coldest, March 5, 1853, mean 26.5. First frost, October 16. Peach, pear, apple, and cherry flowered on March 1, 19, 26, and 29—the peach, this year, of course, being materially injured. As a general rule, the fruit crops in this region, however, are not by any means precarious.

"For 1854–'55 the annual mean was 59.87. The coldest day was February 28, 1855, the mean being 25 degrees, and the hottest July 5, 1854, with a mean of 89 degrees. First frost fell October 16. Plum, cherry, and apple flowered respectively on April 1, 2, and 10."

The western zone of North Carolina embraces the mountain region from the eastern foot of the Blue Ridge to the Tennessee line. It consists of a succession of high ridges and valleys, some of the former running into peaks six thousand feet above the sea level; and one of them, the Black Mountain, rising to the height of nearly seven thousand feet, or higher than any point on the continent east of the Rocky mountains. The average level of the valleys and lower plains in this region is quite two thousand feet above the sea. Approaching the mountains from the east, the ascent is very abrupt; and one-half of the ascent, measured from the ocean to the top of the Blue Ridge, is encountered in the last six miles. On the west, the descent is very gentle; and a railroad from the west could be carried to the summits of the gaps without the necessity of tunnelling. Almost every foot of ground in the mountain region can be made useful to man, for purposes of cultivation or grazing; and it is destined, doubtless,

to be peopled, in the course of time, to the very tops of the highest peaks. Everywhere the soil is good, and the climate delightful.

A common figure of speech, framed originally, perhaps, with reference to latitudes, is calculated to impress the unreflecting with very erroneous ideas in regard to the south. We allude to the phrases, "down south," "down in Virginia, or the Carolinas." The facts stated above will show at once the absurdity of such expressions, when taken literally. The denizen of Boston or New York who complacently talks of going down to North Carolina is in reality as absurd as if he should say down to the Catskill, or down to the White mountains. The mountains of North Carolina are the highest east of the Rocky range which divides the Mississippi valley from the Pacific slope; and the average level of the State, for the same reason, is higher than that of any State east of the Mississippi river. This fact has much to do in tempering the climate, and should ever be kept prominently in view by the friends of the State.

AGRICULTURAL EXPORTS FOR JANUARY AND FEBRUARY.

The following statement of exports of certain products of agriculture and forestry for the first two months of 1867 is from official figures of the latest treasury reports:

Articles.	JANUARY.		FEBRUARY.	
	Quantity.	Value.	Quantity.	Value.
Agricultural implements	----------	$22,693	----------	$65,594
Animals, living, of all kinds	----------	63,961	----------	108,157
Breadstuffs:				
Bread and biscuits ..... pounds..	533,236	38,701	503,567	50,531
Indian corn ..... bushels..	555,382	630,704	908,137	1,032,660
Indian meal ..... barrels..	14,992	78,624	14,132	91,162
Oats ..... bushels..	32,589	22,493	19,230	13,054
Rice ..... pounds..	397,955	35,675	56,901	2,494
Rye ..... bushels..	12,119	8,125	30,481	27,087
Rye flour ..... barrels..	560	4,600	144	977
Wheat ..... bushels..	520,224	621,833	1,580	4,914
Wheat flour ..... barrels..	59,166	571,567	51,246	628,532
Cotton, unmanufactured:				
Sea Island ..... pounds..	453,597	325,373	941,249	694,843
Other ..... do....	79,894,137	25,773,492	77,455,163	25,042,439
Manufactures of	----------	119,867	----------	161,615
Lumber and manufactures of wood:				
Board planks and scantling ..... M feet..	7,929	329,625	7,888	177,730
Hewn timber ..... tons..	2,569	25,725	3,621	30,048
Other lumber	----------	90,809	----------	77,872
Laths and pickets	----------	199	----------	532
Shingles ..... M..	1,921	11,715	2,183	13,241
Shooks	----------	405,807	----------	443,670
Staves and headings ..... M..	1,355	160,076	1,368	202,944
Manufactures not specified	----------	166,065	----------	118,174
Household furniture	----------	47,594	----------	77,355
Oil cake ..... pounds..	4,124,660	107,437	7,442,492	195,453
Provisions:				
Beef ..... pounds..	1,447,508	160,881	1,776,755	184,748
Butter ..... do....	145,486	37,863	236,261	71,757
Cheese ..... do....	2,788,106	399,638	1,343,818	262,150
Fish, dried and smoked ..... cwt..	11,709	62,803	11,066	52,023
fresh	----------	1,700	----------	1,037
pickled ..... barrels..	900	8,297	1,973	20,372
Hams and bacon ..... pounds..	2,502,656	295,867	3,531,399	414,906
Lard ..... do....	3,947,584	524,523	4,618,760	623,899
Pork ..... do....	2,496,263	261,192	2,190,986	241,347
Potatoes ..... bushels..	27,906	31,756	54,627	56,129
Tallow ..... pounds..	1,884,199	205,983	2,862,720	317,300
Tobacco:				
Leaf ..... pounds..	6,011,285	596,773	8,181,339	755,026
Cigars ..... M..	46	2,518	226	7,012
Snuff ..... pounds..	795	769	200	284
Manufactures not specified	----------	177,794	----------	193,273
Total	----------	32,431,117	----------	32,462,341
All other exports	----------	7,517,496	----------	6,013,534
Total exports	----------	39,948,613	----------	38,475,875

PRICES OF WOOL UNDER THE NEW TARIFF.

The following comparison of prices of wool before and since the passage of the late tariff act, as prepared for the United States Economist, shows an enhancement of values of domestic wools which promises a fair encouragement to sheep husbandry:

Grades of wool.	February 22.	April 26.
	Per pound.	*Per pound.*
American, Saxony fleece	50 *to* 65	62½ *to* 75
American, full-blood Merino	48 *to* 60	58 *to* 64
American, half and three-quarters Merino	45 *to* 50	53 *to* 57
Extra, pulled	50 *to* 55	50 *to* 55
Superfine, pulled	40 *to* 50	40 *to* 50
No. 1, pulled	30 *to* 40	30 *to* 40
California, unwashed	30 *to* 40	30 *to* 40
California, common	22 *to* 23	22 *to* 27
Texas	18 *to* 32	18 *to* 33
Peruvian, unwashed	33 *to* 33	30 *to* 33
Valparaiso, unwashed	28 *to* 30	28 *to* 30
South American Mestiza, unwashed	32 *to* 34	32 *to* 34
South American, common, unwashed	25 *to* 27	25 *to* 27
South American Cordova	40 *to* 46	40 *to* 46
Entre Rios, washed	32 *to* 48	32 *to* 38
African, unwashed	20 *to* 30	20 *to* 30
African, washed	30 *to* 40	30 *to* 40
Mexican, unwashed	20 *to* 27	20 *to* 27
Smyrna, unwashed	28 *to* 32	28 *to* 32
Smyrna, washed	35 *to* 58	35 *to* 58

PRICES OF AGRICULTURAL PRODUCTS.

The following statement of prices of certain products for twelve consecutive years, in New York, on the first day of May in each year, is condensed from an extended statement of comparative prices prepared for the New York Journal of Commerce.

	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.
Breadstuffs: Wheat flour, State....barrel..	$5 50	$6 00	$4 25	$5 50	$5 50	$5 20	$5 00	$6 00	$7 10	$6 90	$7 10	$10 70
Rye flour, fine....do....	3 25	3 50	3 40	3 75	3 50	3 10	3 25	4 00	6 00	6 10	4 90	8 75
Corn meal, Jersey....do....	3 12½	3 25	3 50	3 90	3 80	2 85	2 75	4 15	6 00	5 75	3 85	6 50
Wheat, prime white....bushel..	1 80	1 85	1 35	1 70	1 65	1 65	1 42	1 80	1 88	1 85	2 55	3 40
Rye....do....	78	90	66	84	84	68	80	1 03	1 53	1 03	78	1 58
Oats, State....do....	40	58	46	54	43	36	40	85	86	72	61	83
Corn, yellow....do....	62	80	73	86	82	67	58	94	1 38	1 48	86	1 40
Cotton: Middling Upland....pound..	10¾	14¼	12¾	12	11⅛	13⅜	28	66½	83	.....	33	28
Hay....cwt..	80	75	45	75	95	80	65	80	1 60	90	60	1 90
Hops....pound..	9	10	8	13	10	16	15	20	28	35	65	60
Provisions: Pork, mess....barrel..	19 00	23 00	18 75	16 35	17 75	17 87	12 62½	15 00	26 50	26 00	26 00	22 80
Pork, prime....do....	15 50	18 90	15 35	12 75	14 25	13 25	10 00	13 00	23 87½	25 00	24 00	19 00
Beef, mess, country....do....	8 50	13 50	11 50	8 25	5 25	6 00	6 00	6 00	13 00	14 00	20 00	16 00
Beef, prime....do....	8 00	11 25	8 50	6 50	4 25	4 25	4 50	4 50	7 00	.....	.....	.....
Pickled hams....pound..	9½	11	10	9½	9½	8½	5¾	7½	15¼	18	17¼	13
Pickled shoulders....do....	7½	9	7¼	6½	7½	6⅝	4¼	5½	11¾	15	12	9¼
Lard....do....	10	14¼	11⅞	11⅝	11¼	9⅞	8½	10¼	14½	18	20	13¼
Butter, State....do....	20	27	25	22½	18	16	18	19	31	35	50	28
Cheese....do....	10	13	8½	10	10	7	8½	12	17½	20	20	19
Rice....cwt..	4 25	5 00	4 25	4 00	4 12½	5 75	6 50	8 00	10 25	10 50	9 12½	10 50
Salt: Liverpool, fine....sack..	1 78	1 45	1 37½	1 50	1 70	1 60	1 65	2 50	2 20	2 50	2 75	*2 60
Seeds: Clover....pound..	12	11	7½	8¼	8½	8	7½	8½	12½	30	12	15
Tallow....do....	10½	11¼	10½	10⅜	10¼	9	8¾	11½	14⅛	11½	11½	11⅛
Tobacco: Kentucky....pound..	12½	16	12	11	10	9	12½	20	30	25	20	16
Manufactured....do....	28	32	24	20	20	17	30	65	65	70	75	70
Wool: Common....do....	32	39	25	40	35	32	42	70	70	65	65	48
Three-quarter blood....do....	45	50¼	34	50	48	40	45	75	75	67	50	55
Merino....do....	48	56	37	56	55	47	49	78	77	70	62	65
Pulled, No. 1....do....	34	37	22	33	.....	23	31	60	60	64	45	43

* Gold.

RESULTS OF FATTENING.

The following statement of an experiment in cattle-feeding was communicated by Count V. Riedelsee, Eisenbach, for the agricultural journal of Hessia, and is translated for this report.

The cattle represented in these tables were weighed every four weeks. Their food was of good, sound quality, seasoned at the end of the week with one-fourth pound of salt per head.

Number of oxen.	Weight at the beginning.	Weight at the end of the 1st month.	Gain during the 1st month.	Weight at the end of the 2d month.	Gain the 2d month.	Weight at the end of the 3d month.	Gain the 3d month.	Weight at the end of the 4th month.	Gain the 4th month.	Weight at the end of the 5th month.	Gain the 5th month.	Total gain in 5 mos.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
No. 1.....	1,070	1,110	40	1,170	60	1,300	130	1,400	100	1,490	90	420
2.....	1,085	1,140	55	1,160	20	1,250	90	1,360	110	1,480	120	395
3.....	1,100	1,170	70	1,280	110	1,410	130	1,510	100	1,645	135	545
4.....	1,050	1,100	50	1,180	80	1,225	45	1,250	25	1,340	90	290
5.....	965	985	20	1,060	75	1,100	40	1,230	130	1,370	140	405
6.....	935	980	45	1,070	90	1,150	80	1,250	100	1,350	100	415
7.....	965	1,025	60	1,110	85	1,190	80	1,235	45	1,285	50	320
8.....	985	1,025	40	1,070	45	1,090	20	1,150	60	1,215	65	230
9.....	950	990	40	1,040	50	1,120	80	1,150	30	1,190	40	240
10.....	940	975	35	1,040	65	1,140	100	1,210	70	1,280	70	340
11.....	920	930	10	1,000	70	1,120	120	1,250	130	.....	.....	330
12.....	785	810	25	850	40	870	20	890	20	.....	.....	105
13.....	.....	.....	.....	.....	.....	820	.....	920	100	.....	.....	100
14.....	.....	.....	.....	.....	.....	.....	.....	750	.....	830	80	80
15.....	.....	.....	.....	.....	.....	.....	.....	800	.....	870	70	70
16.....	.....	.....	.....	.....	.....	.....	.....	750	.....	815	65	65
Total ...	11,750	12,240	490	13,030	790	14,735	935	18,105	1,020	16,160	1,115	4,350

The rations fed consisted of, for the first month, distillery refuse from 400 pounds of grain; 50 pounds chaff, mixed with 25 pounds cut provender, (straw;) 100 pounds hay, 40 pounds green malt.

For the second month, distillery refuse from 400 pounds of grain; 50 pounds chaff, 25 pounds cut provender, 100 pounds hay, 40 pounds ground rye, 40 pounds green malt, (or beans and peas.)

For the third month, as also for the next two, (fourth and fifth,) the same, only adding 10 pounds more of ground grains, peas or beans. The race in question is the *Vogelsberger*. Highest gain for the term of five months, 545 pounds; least gain for the term of five months, 230 pounds; highest gain for one single day, 3.61 pounds; smallest gain for one single day, 1.52 pound.

The oxen from 11 to 16 are not taken into consideration, as not being kept for the whole term. We found that the individual state of each single animal has much to do with its getting fat, some gaining more than twice as fast as others, showing that the best animals only ought to be kept. In the whole term of five months 4,350 pounds of live weight were gained, with 64,192 pounds of food. Therefore 14.7 pounds of food produced 1 pound, though the same will be produced by 7 pounds of some other kinds of food. No kind of food, however, should be employed of which more than 20 pounds are required to make 1 pound of meat.

Estimating 100 pounds of live weight as being worth ten dollars, the value would be $435. Therefore 642 cwt. of food produced $435 worth of meat, or per cwt. $6.77. This shows a fair pay for promiscuous feeding material, not to mention the gain of excellent dung. These rations in question were rather high in price, and I do not doubt that almost any other combination of food might do better.

In comparing my results with others I concluded to increase the addition of rich feeding matter towards the middle of the fattening term, and then decrease again, not however, diminishing the amount of food to be consumed. I likewise found that feeding oil-cake, maize, brans, oats, &c., will increase the rapidity of fattening and not require as big a bulk, thus saving time and matter. All such and similar facts may be established by not neglecting to weigh the cattle.

REFUSE MATTERS OF FACTORIES AS FERTILIZERS.

"The Journal of Agriculture" of Rhenish Prussia states that the refuse matters of the potash factory of Deutz are being used to great advantage as fertilizers. Dr. Camrodt writes that he used 70 cwt. of this refuse per acre, at a cost of about one dollar, and harvested an increased crop of 30 cwt. per acre over the yield of lands upon which it was not used, making a clear profit of about $20 per acre. Thousands of tons of this refuse accumulate around the western asheries, where black salt and pearlash are manufactured from wood ashes, and from analysis and experiment it is considered a valuable and economical fertilizer at $2 50 per ton. It is applied to the soil in the fall, and has a tendency to keep the ground mellow and well pulverized. Gypsum, rich in potash, also accumulates in these factories, and is found to be especially adapted to grass and clover, in many instances doubling the crops. The richest of all such matters, however, is said to be the refuse in making beet sugar. The *dirty water*, as the lye was called in the infancy of beet-sugar manufacture, was formely conducted into ponds and rivers, killing the fish and poisoning the air far around, but by experiment the material proves to be worth almost as much as a fertilizer as the sugar produces in the market.

Destruction of Insects infesting Cereals.

In an article by M. Gaud, agricultural engineer of Belgium, it appears that since the year 1865 the depredations of the weevil and the alucite in that country have been alarming, and the scourge threatens to become even greater in the future, these parasites appearing in incredible numbers in the southwestern portion of the country. It is stated that in 1770, when the granaries of L'Angoumois were invaded by an army of alucites, sulphur-gas was the most effective remedy applied. The grain was deposited in barrels smoked with burning sulphur—the vessel being prepared by burning within it a few sulphur threads, made by drawing coarse threads through melted brimstone. Fifteen inches of this thread is sufficient for each barrel. The grain is then thrown in and kept there under cover for fifteen minutes, when the operation is complete. If the grain be very much damaged by the parasites, it should remain somewhat longer in the barrel.

[The only objection to this plan would be the taste or smell of the grain afterwards if used for bread. Would it not affect germination?]

PRICES OF FARM STOCK IN THE PACIFIC STATES.

Table showing the amount, in tenths, of the farm stock of the States and Territories named in February, 1867, compared with the amount in February, 1866, and the prices of the same on the 1st of February, 1867.

States and Territories.	HORSES.					MULES.					CATTLE AND OXEN.					COWS.		SHEEP.			HOGS.			No. of sheep killed by dogs in 1866, as reported by our correspondents.
	Average number compared with 1866.	Average price per head of same under 1 year old.	Average price per head of same between 1 and 2 years old.	Average price per head of same between 2 and 3 years old.	Average price per head of same over 3 years old.	Average number compared with 1866.	Average price per head of same under 1 year old.	Average price per head of same between 1 and 2 years old.	Average price per head of same between 2 and 3 years old.	Average price per head of same over 3 years old.	Average number compared with 1866.	Average price per head of same under 1 year old.	Average price per head of same between 1 and 2 years old.	Average price per head of same between 2 and 3 years old.	Average price per head of same over three years old.	Average number compared with 1866.	Average price of same.	Average number compared with 1866.	Average price of same under 1 year old.	Average price of same over 1 year old.	Average number compared with 1866.	Average price per head of same under 1 year old.	Average price per head of same over 1 year old.	
California	11.2	$20	$30	$45	$75	10.6	$25	$38	$63	$113	9.2	$8	$15	$27	$39	11.6	$39	12	$2 27	$3 40	14	$5 72	$10 44	In 8 counties, 828.
Oregon	10.7	24	35	53	97	12.3	30	45	71	113	10.2	6¼	11	17	29	10.8	26	12.4	1 56	2 20	10.5	3 00	7 00	In 7 counties, 984.
Nevada	11.5	20	37	52	95	10.5	45	60	85	130	13	10	18	30	52	12.2	50	11	4 25	5 25	16	12 00	17 00	
Washington	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	10	18	25	45	12.5	30	.....	.....	.....	11	5 00	10 00	
Dakota	12	50	80	100	120	10	40	70	90	150	14	15	20	30	45	14	30	20	3 00	4 00	20	5 00	10 00	In 1 county, 10.
New Mexico	.....	16	31	51	99	10	22	35	60	103	10	10	16	27	38	.....	32	.....	1 00	2 37	10	4 00	13 00	

There is a wide range of prices for stock in the Pacific States and Territories, depending very much upon the breeds, whether American or Mexican; also whether the prices are paid in currency or gold. The above are *average* estimates, based upon the returns of our correspondents.

Table showing the average yield per acre in 1866, *and the prices of the principal farm products in Nevada, Washington, and New Mexico, on the* 1*st of January,* 1867.

Farm products.	NEVADA.		WASHINGTON.		NEW MEXICO.	
	Average yield per acre in 1866.	Average price January 1, 1867.	Average yield per acre in 1866.	Average price January 1, 1867.	Average yield per acre in 1866.	Average price January 1, 1867.
	Bush.		*Bush.*		*Bush.*	
Wheat	20	$2 00	20	$1 04	68	$1 40
Barley	25	1 35	34½	75	------	------
Oats	35	1 00	32	45	77½	1 50
Corn	27½	2 12	------	------	55	1 50
Potatoes	150	1 25	158	55	------	------
Hay	1.2*	15 00	1.91*	13 33	1*	35 00

* Tons.

The above returns are not sufficient to insure perfect accuracy. They are given as the actual averages of the returns from the counties reported.

EXPORTS OF AGRICULTURAL PRODUCTS.

The following is a comparative statement showing the quantity of certain products shipped from the port of New York during the first four months of the following years.

Articles.	1865.	1866.	1867.
Ashes, pot ..... barrels..	1,773	1,691	1,075
Ashes, pearl ..... do....	130	39	67
Beeswax ..... pounds..	106,684	111,154	52,592
Breadstuffs—			
Wheat flour ..... barrels..	392,365	344,490	142,124
Rye flour ..... do....	1,160	1,074	4,533
Cornmeal ..... do....	46,330	43,523	43,993
Wheat ..... bushels..	185,091	109,467	32,742
Rye ..... do....	141	171,826	127,282
Oats ..... do....	24,473	676,620	90,590
Barley ..... do....	.....	.....	708,780
Peas ..... do....	15,879	26,614	115,140
Corn ..... do....	143,112	2,077,156	2,719,740
Candles ..... boxes..	46,568	25,014	22,672
Coal ..... tons..	13,403	10,816	27,175
Cotton ..... bales..	15,995	235,852	224,771
Hay ..... do....	6,228	17,646	9,409
Hops ..... do....	11,553	383	1,308
Naval stores—			
Crude turpentine ..... barrels..	34	8,208	52
Spirits turpentine ..... do....	481	2,989	6,891
Rosin ..... do....	2,184	92,647	89,500
Tar ..... do....	6,889	5,776	745
Pitch ..... do....	521	726	1,106
Oils—			
Whale ..... gallons..	9,693	42,902	124,222
Sperm ..... do....	35,701	67,775	316,485
Lard ..... do....	13,766	5,198	26,548
Linseed ..... do....	6,043	2,524	2,554
Provisions—			
Pork ..... barrels..	44,022	39,536	31,544
Beef ..... do....	15,216	12,015	7,064
Beef ..... tierces..	27,889	21,379	16,875
Cut meats ..... pounds..	20,788,406	21,636,355	14,114,426
Butter ..... do....	6,773,087	743,055	1,522,368
Cheese ..... do....	9,587,043	2,989,191	8,355,503
Lard ..... do....	13,045,692	12,087,482	12,956,500
Rice ..... tierces..	28	29	92
Rice ..... barrels..	13,338	3,825	4,510
Tallow ..... pounds..	9,217,560	5,163,116	6,615,793
Tobacco, crude ..... packages..	53,347	35,325	28,320
Tobacco, manufactured ..... pounds..	1,794,158	962,543	2,298,817
Whalebone ..... pounds..	45,730	180,627	203,735
Petroleum ..... gallons..	2,426,915	9,035,298	8,663,900

CROPS OF 1866.

Table showing the amount in bushels, &c., of each principal crop of the several States named, the yield per acre, the total acreage, the average price in each State, and the value of each crop, for 1866.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
MAINE.					
Indian corn ..... bushels..	1,624,239	33	49,219	$1 35	$2,192,723
Wheat..... " ..	193,150	12.7	15,208	2 86	552,409
Rye ..... " ..	156,649	17	9,215	1 39	217,742
Oats ..... " ..	2,653,626	27.7	95,799	69	1,831,002
Barley..... " ..	742,619	24	30,943	1 02	757,471
Buckwheat..... " ..	367,384	31	11,851	90	330,646
Potatoes ..... " ..	6,146,725	156	39,402	51	3,134,830
Tobacco ..... pounds ..	.....	.....	.....	.....	.....
Hay..... tons.....	957,772	.8	1,197,215	19 28	18,465,844
Total.....	.....	.....	1,447,470	.....	27,482,667
NEW HAMPSHIRE.					
Indian corn ..... bushels..	1,321,281	32	41,290	1 37	1,810,155
Wheat..... " ..	305,653	16.2	18,868	2 58	788,585
Rye ..... " ..	161,559	16	10,097	1 39	224,567
Oats..... " ..	1,481,018	29.2	50,720	68	1,007,092
Barley..... " ..	105,038	25	4,202	1 19	124,995
Buckwheat..... " ..	76,455	22	3,475	1 08	82,571
Potatoes ..... " ..	3,692,860	132	27,976	49	1,809,501
Tobacco ..... pounds ..	.....	.....	.....	.....	.....
Hay..... tons.....	665,395	.84	792 137	17 88	11,897,263
Total.....	.....	.....	948,765	.....	17,744,729
VERMONT.					
Indian corn ..... bushels..	1,490,975	33.3	44,774	1 41	2,102,275
Wheat..... " ..	614,692	20.2	30,430	2 67	1,641,228
Rye ..... " ..	154,783	18.5	8,367	1 51	233,722
Oats..... " ..	4,846,015	40.3	120,249	63	3,052,989
Barley..... " ..	104,390	29	3,600	1 23	128,400
Buckwheat..... " ..	225,252	30	7,508	1 00	225,252
Potatoes ..... " ..	5,305,045	148	35,845	43	2,281,169
Tobacco ..... pounds ..	59,000	.....	.....	.....	.....
Hay..... tons.....	862,878	1	862,878	15 61	13,469,525
Total.....	.....	.....	1,113,651	.....	23,134,560
MASSACHUSETTS.					
Indian corn ..... bushels..	2,363,245	34	69,507	1 34	3,166,748
Wheat..... " ..	160,123	14.9	6,563	2 78	445,142
Rye ..... " ..	401,538	17.2	23,345	1 38	554,122
Oats..... " ..	1,278,465	29.2	43,783	76	971,633
Barley..... " ..	144,598	22	6,573	1 27	183,639
Buckwheat..... " ..	101,946	20.4	4,997	1 02	103,985
Potatoes ..... " ..	3,351,030	139	24,108	69	2,312,211
Tobacco ..... pounds ..	5,171,400	.....	.....	20	1,034,280
Hay..... tons.....	742,872	1	742,872	28 39	21,090,136
Total.....	.....	.....	921,748	.....	29,861,896

Table showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
RHODE ISLAND.					
Indian corn ..... bushels..	408,293	27.3	14,956	$1 42	$579,776
Wheat ..... " ..	1,413	15	94	2 80	3,956
Rye ..... " ..	32,658	17.6	1,855	1 44	47,028
Oats ..... " ..	154,222	35	4,406	73	112,582
Barley ..... " ..	35,031	28.3	1,237	1 15	40,250
Buckwheat ..... " ..	.....	18	.....	1 50	.....
Potatoes ..... " ..	499,440	105	4,757	80	399,552
Tobacco ..... pounds ..	1,035	.....	.....	.....	.....
Hay ..... tons	53,379	1	53,379	31 66	1,689,979
Total	.....	.....	80,684	.....	2,873,123
CONNECTICUT.					
Indian corn ..... bushels..	2,220,502	33	67,288	1 26	2,797,832
Wheat ..... " ..	71,881	17.3	4,155	2 83	203,423
Rye ..... " ..	776,030	13	59,695	1 50	1,154,045
Oats ..... " ..	2,741,448	32	85,670	71	1,946,428
Barley ..... " ..	19,200	23.5	817	1 27	24,384
Buckwheat ..... " ..	348,632	15	23,242	98	341,660
Potatoes ..... " ..	1,480,268	109	13,580	81	1,199,017
Tobacco ..... pounds ..	7,840,974	1200	6,534	19.5	1,528,990
Hay ..... tons	536,527	1.4	383,233	25 60	13,735,091
Total	.....	.....	644,214	.....	22,930,870
NEW YORK.					
Indian corn ..... bushels..	22,809,893	27	844,811	1 16	26,459,475
Wheat ..... " ..	12,556,406	15.2	826,079	2 67	33,525,604
Rye ..... " ..	5,309,874	16.3	325,759	1 21	6,424,947
Oats ..... " ..	54,029,350	33	1,637,253	61	32,957,903
Barley ..... " ..	4,459,288	23.5	189,757	1 06	4,726,845
Buckwheat ..... " ..	6,476,597	26.2	247,198	92	5,958,469
Potatoes ..... " ..	31,156,676	107	291,184	69	21,498,106
Tobacco ..... pounds ..	9,824,384	718	13,683	13.5	1,326,291
Hay ..... tons	4,759,516	1.2	3,966,264	16 18	77,008,969
Total	.....	.....	8,341,988	.....	209,886,609
NEW JERSEY.					
Indian corn ..... bushels..	9,539,223	43.3	220,305	1 03	9,825,400
Wheat ..... " ..	1,278,347	13.5	94,692	2 93	3,745,557
Rye ..... " ..	1,408,497	14	100,607	1 26	1,774,706
Oats ..... " ..	6,498,487	34.5	188,362	61	3,964,077
Barley ..... " ..	27,167	20	1,358	1 00	27,167
Buckwheat ..... " ..	861,376	18	47,854	1 15	990,582
Potatoes ..... " ..	4,039,708	77	52,464	86	3,474,149
Tobacco ..... pounds ..	153,691	.....	.....	.....	.....
Hay ..... tons	369,566	1.26	293,306	25 00	9,239,150
Total	.....	.....	998,948	.....	33,040,788

Table showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
PENNSYLVANIA.					
Indian corn ..... bushels..	35,831,877	34.4	1,041,624	$0 91	$32,607,008
Wheat ..... " ..	10,519,660	11	956,333	2 67	28,087,492
Rye ..... " ..	6,569,690	13.6	483,065	1 17	7,686,537
Oats ..... " ..	54,954,560	33	1,668,320	50	27,477,280
Barley ..... " ..	621,574	22.3	27,873	1 09	677,515
Buckwheat ..... " ..	9,718,728	21.4	454,146	96	9,329,979
Potatoes ..... " ..	15,636,859	99.3	157,471	76	11,884,013
Tobacco ..... pounds ..	4,960,886	800	6,201	17	843,350
Hay ..... tons	1,970,836	1.2	1,642,363	16 14	31,809,293
Total	.....	.....	6,437,396	.....	150,402,467
DELAWARE.					
Indian corn ..... bushels..	4,281,570	16	267,598	87	3,724,966
Wheat ..... " ..	685,720	8	85,715	3 00	2,057,160
Rye ..... " ..	41,853	9.5	4,406	1 33	55,664
Oats ..... " ..	2,317,857	15	154,523	55	1,274,821
Barley ..... " ..	5,973	8	746	1 00	5,973
Buckwheat ..... " ..	17,205	27.5	626	1 37	23,570
Potatoes ..... " ..	270,220	75	3,603	70	189,154
Tobacco ..... pounds ..	.....	.....	.....	.....	.....
Hay ..... tons	26,820	1.1	24,382	17 50	469,350
Total	.....	.....	541,599	.....	7,800,658
MARYLAND.					
Indian corn ..... bushels..	15,024,176	30	500,806	93	13,972,483
Wheat ..... " ..	4,383,708	9.7	451,929	2 94	12,888,101
Rye ..... " ..	476,770	11	43,343	1 16	553,053
Oats ..... " ..	7,056,145	26.6	265,269	55	3,880,880
Barley ..... " ..	25,262	25	1,010	1 00	25,262
Buckwheat ..... " ..	198,498	25	7,940	1 08	214,378
Potatoes ..... " ..	1,401,832	70	20,026	80	1,121,465
Tobacco ..... pounds ..	29,963,672	693	43,237	10.3	3,086,258
Hay ..... tons	181,341	1.3	139,493	20 27	3,675,782
Total	.....	.....	1,473,053	.....	39,352,316
VIRGINIA.					
Indian corn ..... bushels..	24,369,908	20	1,218,495	73	17,790,033
Wheat ..... " ..	4,331,364	6.7	646,472	2 85	12,344,387
Rye ..... " ..	698,453	9	77,606	1 06	740,360
Oats ..... " ..	10,245,156	20	512,258	45	4,610,320
Barley ..... " ..	.....	.....	.....	.....	.....
Buckwheat ..... " ..	162,686	16.5	9,860	85	138,278
Potatoes ..... " ..	1,592,166	83	19,183	66	1,050,830
Tobacco ..... pounds ..	114,480,516	718	159,444	13.7	15,683,830
Hay ..... tons	203,698	1.3	156,691	14 28	2,908,807
Total	.....	.....	2,800,009	.....	55,266,845

Table showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
NORTH CAROLINA.					
Indian corn ..... bushels..	21,656,566	12	1,804,714	$1 12	$24,255,354
Wheat ..... " ..	2,846,223	5.8	490,728	2 72	7,741,727
Rye ..... " ..	371,327	6.7	55,422	1 70	631,256
Oats ..... " ..	2,948,771	14.3	206,208	71	2,092,627
Barley ..... " ..	2,928	.....	.....	.....	.....
Buckwheat ..... " ..	29,098	16	1,819	1 32	38,409
Potatoes ..... " ..	830,565	81	10,254	71	588,701
Tobacco ..... pounds ..	39,423,900	683	57,722	20.5	8,081,399
Hay ..... tons	163,229	1.3	125,561	13 00	2,121,977
Total	.....	.....	2,752,428	.....	45,551,450
SOUTH CAROLINA.					
Indian corn ..... bushels..	6,026,242	5.9	1,021,397	1 58	9,521,462
Wheat ..... " ..	642,815	4.7	136,769	3 19	2,050,580
Rye ..... " ..	53,454	5	10,691	1 98	105,839
Oats ..... " ..	655,881	8.3	79,023	1 11	728,028
Barley ..... " ..	.....	.....	.....	.....	.....
Buckwheat ..... " ..	.....	.....	.....	.....	.....
Potatoes ..... " ..	158,714	80	1,984	1 03	163,475
Tobacco ..... pounds ..	52,206	.....	.....	.....	.....
Hay ..... tons	70,069	1	70,069	22 00	1,541,518
Total	.....	.....	1,319,933	.....	14,110,902
GEORGIA.					
Indian corn ..... bushels..	15,695,909	6.2	2,531,598	1 52	23,857,782
Wheat ..... " ..	1,272,456	4	318,114	2 72	3,461,080
Rye ..... " ..	69,319	4.8	14,441	1 34	92,887
Oats ..... " ..	985,453	10.7	92,098	1 00	985,453
Barley ..... " ..	11,745	8.2	1,432	1 84	21,611
Buckwheat ..... " ..	1,922	.....	.....	.....	.....
Potatoes ..... " ..	258,221	62	4,165	77	198,830
Tobacco ..... pounds ..	1,195,113	625	1,912	32	382,436
Hay ..... tons	46,448	0.9	51,610	23 62	1,097,125
Total	.....	.....	3,015,370	.....	30,097,204
FLORIDA.					
Indian corn ..... bushels..	1,984,073	13.2	150 308	1 50	2,976,110
Wheat ..... " ..	.....	.....	.....	.....	.....
Rye ..... " ..	12,783	.....	.....	.....	.....
Oats ..... " ..	18,759	22.5	834	1 25	23,449
Barley ..... " ..	.....	.....	.....	.....	.....
Buckwheat ..... " ..	.....	.....	.....	.....	.....
Potatoes ..... " ..	15,388	187	82	85	13,080
Tobacco ..... pounds ..	.....	.....	.....	.....	.....
Hay ..... tons	9,756	3	3,252	20 62	201,169
Total	.....	.....	154,476	.....	3,213,808

Showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
ALABAMA.					
Indian corn ..... bushels..	21,597,083	9	2,399,676	$1 51	$32,611,595
Wheat ..... " ..	657,960	5.7	115,432	2 34	1,539,626
Rye ..... " ..	43,474	6.5	6,673	2 12	92,165
Oats ..... " ..	497,990	11.4	43,683	1 05	522,890
Barley ..... " ..	9,383	9	1,042	1 87	17,546
Buckwheat ..... " ..	.....	.....	.....	.....	.....
Potatoes ..... " ..	422,815	107	3,951	79	334,024
Tobacco ..... pounds ..	349,371	322	1,085	31	108,305
Hay ..... tons.....	80,854	1	80,854	18 63	1,506,310
Total	.....	.....	2,652,396	.....	36,732,461
MISSISSIPPI.					
Indian corn ..... bushels..	11,913,650	14.5	821,631	1 57	18,704,430
Wheat ..... " ..	258,687	5	51,737	2 53	654,478
Rye ..... " ..	23,684	7.6	3,116	2 03	48,078
Oats ..... " ..	101,768	10.4	9,785	1 09	110,927
Barley ..... " ..	1,060	14	76	2 08	2,205
Buckwheat ..... " ..	1,700	.....	.....	.....	.....
Potatoes ..... " ..	385,318	76	5,070	64	246,604
Tobacco ..... pounds ..	165,507	250	662	30	49,652
Hay ..... tons.....	29,611	.87	34,035	27 50	814,302
Total	.....	.....	926,112	.....	20,630,676
LOUISIANA.					
Indian corn ..... bushels..	6,910,035	17	406,473	1 23	8,499,343
Wheat ..... " ..	.....	6	.....	2 50	.....
Rye ..... " ..	.....	5	.....	2 50	.....
Oats ..... " ..	89,377	.....	.....	.....	.....
Barley ..... " ..	.....	.....	.....	.....	.....
Buckwheat ..... " ..	.....	.....	.....	.....	.....
Potatoes ..... " ..	206,258	85	2,426	1 21	249,572
Tobacco ..... pounds ..	59,910	400	156	40	23,964
Hay ..... tons.....	36,900	.....	.....	30 00	1,107,000
Total	.....	.....	.....	.....	.....
TEXAS.					
Indian corn ..... bushels..	20,295,863	26	780,610	94	19,078,111
Wheat ..... " ..	1,847,931	12	153,994	1 45	2,679,500
Rye ..... " ..	123,046	17	7,238	1 08	132,890
Oats ..... " ..	1,084,478	25.5	42,528	86	932,651
Barley ..... " ..	60,805	23	2,643	97	58,981
Buckwheat ..... " ..	.....	.....	.....	.....	.....
Potatoes ..... " ..	250,822	131	1,915	70	175,575
Tobacco ..... pounds ..	127,288	829	153	21	26,730
Hay ..... tons.....	15,543	1.5	10,366	13 60	211,385
Total	.....	.....	999,447	.....	23,295,823

Showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
ARKANSAS.					
Indian corn ..... bushels..	11,585,332	24	482,722	$1 14	$13,207,278
Wheat ..... " ..	584,137	6.5	89,867	2 06	1,203,322
Rye ..... " ..	39,046	10	3,904	1 67	65,207
Oats ..... " ..	308,924	13	23,763	94	290,389
Barley ..... " ..	4,737	12.5	379	1 50	7,105
Buckwheat ..... " ..	.....	15	.....	2 00	.....
Potatoes ..... " ..	263,346	107	.....	81	213,310
Tobacco ..... pounds ..	1,425,571	650	2,193	32	456,183
Hay ..... tons.....	7,578	1.3	5,830	26 43	200,257
Total.....	.....	.....	608,658	.....	15,643,084
TENNESSEE.					
Indian corn..... bushels..	46,880,933	22	2,130,951	77	36,098,318
Wheat ..... " ..	3,985,265	5.3	751,937	2 21	8,807,435
Rye ..... " ..	232,190	8.2	28,315	1 18	273,984
Oats..... " ..	2,970,836	20	148,542	51	1,515,126
Barley..... " ..	20,115	23.2	867	1 39	27,960
Buckwheat..... " ..	13,322	15	888	1 17	15,587
Potatoes ..... " ..	1,501,146	72	20,849	72	1,080,825
Tobacco ..... pounds ..	46,054,983	712	64,684	21	9,671,546
Hay ..... tons.....	140,580	1.4	100,414	18 63	2,619,000
Total.....	.....	.....	3,247,447	.....	60,109,781
KENTUCKY.					
Indian corn ..... bushels..	65,564,630	31.8	2,061,781	49	32,126,669
Wheat ..... " ..	2,063,256	6.5	317,427	2 30	4,745,489
Rye ..... " ..	419,287	9.3	45,085	1 12	469,601
Oats ..... " ..	5,644,573	21.8	258,925	48	2,709,395
Barley..... " ..	137,516	13.5	10,186	1 37	188,397
Buckwheat..... " ..	14,421	17.5	824	1 17	16,873
Potatoes ..... " ..	1,786,200	88	20,298	67	1,196,754
Tobacco ..... pounds ..	61,683,856	755	81,700	9.5	5,859,966
Hay ..... tons.....	115,844	1.37	84,558	12 80	1,482,803
Total.....	.....	.....	2,880,781	.....	48,795,947
MISSOURI.					
Indian corn ..... bushels..	46,819,543	30.8	1,520,115	58	27,155,335
Wheat ..... " ..	3,544,036	16.5	214,790	2 01	7,123,512
Rye ..... " ..	222,899	19.8	11,258	97	216,212
Oats ..... " ..	3,451,400	30.7	112,423	44	1,518,616
Barley..... " ..	156,207	25.5	6,139	1 03	160,986
Buckwheat..... " ..	65,113	21	3,244	93	63,345
Potatoes ..... " ..	1,659,323	92.3	11,477	79	830,805
Tobacco ..... pounds ..	12,952,285	877	14,768	11	1,424,751
Hay..... tons.....	654,544	1.9	344,497	9 91	6,486,531
Total.....	.....	.....	2,238,711	.....	44,980,153

Showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
ILLINOIS.					
Indian corn ..... bushels..	155,844,350	31.6	4,931,783	$0 43	$67,013,070
Wheat ..... " ..	28,551,421	13	2,196,263	1 93	55,104,243
Rye ..... " ..	666,455	15.6	42,721	79	526,500
Oats ..... " ..	30,054,370	34	883,952	33	9,917,942
Barley ..... " ..	1,037,753	25	41,510	68	705,672
Buckwheat ..... " ..	273,010	16.8	16,250	1 07	292,121
Potatoes ..... " ..	5,102,035	86.5	58,983	64	3,265,302
Tobacco ..... pounds ..	17,546,981	686	25,578	9.3	1,631,470
Hay ..... tons	2,340,063	1.47	1,591,880	9 27	21,692,384
Total	.....	.....	9,788,920	.....	160,148,704
INDIANA.					
Indian corn ..... bushels..	127,676,247	36.5	3,497,980	44	56,177,548
Wheat ..... " ..	9,114,562	5.9	1,544,841	2 41	21,966,094
Rye ..... " ..	345,144	12.2	28,290	1 03	355,498
Oats ..... " ..	10,158,562	29.3	346,709	35	3,555,497
Barley ..... " ..	339,474	19	17,867	1 07	363,237
Buckwheat ..... " ..	443,094	19	23,321	1 02	451,956
Potatoes ..... " ..	3,774,226	79.3	47,594	57	2,151,309
Tobacco ..... pounds ..	8,205,973	837	9,804	8.4	689,302
Hay ..... tons	1,088,932	1.23	885,310	9 44	10,279,518
Total	.....	.....	6,401,716	.....	95,989,959
OHIO.					
Indian corn ..... bushels..	99,766,822	38	2,625,443	54	53,874,084
Wheat ..... " ..	10,208,854	4.5	2,430,680	2 52	25,726,312
Rye ..... " ..	591,121	10.8	54,733	1 09	644,322
Oats ..... " ..	22,187,420	32.2	689,050	40	8,874,968
Barley ..... " ..	1,294,139	19.5	66,366	1 14	1,475,318
Buckwheat ..... " ..	1,705,785	18.5	92,205	1 10	1,876,363
Potatoes ..... " ..	4,516,640	78	57,905	77	3,477,813
Tobacco ..... pounds ..	25,593,815	860	29,760	6.7	1,714,785
Hay ..... tons	1,963,799	1.3	1,510,615	11 00	21,601,789
Total	.....	.....	7,556,757	.....	119,265,754
MICHIGAN.					
Indian corn ..... bushels..	16,118,680	32	503,709	82	13,217,318
Wheat ..... " ..	14,740,639	13.8	1,068,162	2 55	37,588,630
Rye ..... " ..	413,150	15.5	26,655	1 06	437,939
Oats ..... " ..	8,293,877	34.7	236,135	47	3,898,122
Barley ..... " ..	418,971	25	16,759	1 02	427,350
Buckwheat ..... " ..	1,306,819	20	65,341	98	1,280,683
Potatoes ..... " ..	5,037,298	110	45,793	56	2,820,877
Tobacco ..... pounds ..	278,786	1200	232	15	41,818
Hay ..... tons	1,218,959	1.3	937,661	13 75	16,760,686
Total	.....	.....	2,900,447	.....	76,473,423

Showing the amount of each principal crop, &c.—Continued.

Products.	Amount of crop of 1866.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
WISCONSIN.					
Indian corn.....bushels..	9,414,583	28.3	332,671	$0 82	7,719,958
Wheat..... " ..	20,307,920	14.5	1,400,546	1 67	33,914,226
Rye ..... " ..	926,492	16.6	55,813	88	815,313
Oats..... " ..	17,174,086	33.3	515,738	54	9,274,006
Barley..... " ..	860,521	25.2	34,148	90	774,469
Buckwheat..... " ..	69,227	16	4,327	86	59,535
Potatoes ..... " ..	3,940,273	91	43,300	64	2,521,775
Tobacco .....pounds ..	143,344	900	160	20	28,669
Hay.....tons.....	1,151,477	1.3	885,752	12 25	14,105,593
Total.....	.....	.....	3,272,455	.....	69,213,544
IOWA.					
Indian corn .....bushels..	52,288,184	31.5	1,659,942	44	23,006,801
Wheat..... " ..	15,753,323	16	984,583	1 42	22,369,718
Rye ..... " ..	116,946	19.3	6,060	69	80,693
Oats..... " ..	12,607,749	37.8	333,538	39	4,917,022
Barley..... " ..	622,784	25.4	24,520	67	417,265
Buckwheat..... " ..	283,714	16	17,732	1 01	286,551
Potatoes ..... " ..	2,755,726	72	38,275	89	2,452,596
Tobacco .....pounds ..	390,424	988	395	20	78,085
Hay.....tons.....	1,161,039	1.9	611,073	6 20	7,198,442
Total.....	.....	.....	3,676,118	.....	60,807,173
KANSAS.					
Indian corn.....bushels..	6,527,358	34.2	190,858	63	4,112,235
Wheat..... " ..	260,465	21.4	12,171	1 91	497,488
Rye ..... " ..	4,548	26.4	172	96	4,366
Oats..... " ..	200,316	39	5,136	47	94,148
Barley..... " ..	7,255	29	250	94	6,820
Buckwheat..... " ..	20,402	28	728	1 54	31,420
Potatoes ..... " ..	243,514	81	3,006	1 59	387,187
Tobacco .....pounds ..	22,263	550	41	29	6,456
Hay.....tons.....	123,082	2	61,541	7 18	883,729
Total.....	.....	.....	273,903	.....	6,023,849
NEBRASKA.					
Indian corn.....bushels..	2,095,030	29.3	71,503	68	1,424,620
Wheat..... " ..	257,839	26	9,917	1 23	317,142
Rye ..... " ..	2,225	26	86	92	2,047
Oats..... " ..	450,138	47.2	9,537	46	207,063
Barley..... " ..	8,184	35.3	232	84	6,875
Buckwheat..... " ..	6,453	26	248	1 85	11,908
Potatoes ..... " ..	129,319	49	2,455	1 75	210,558
Tobacco .....pounds ..	1,550	430	3	24	372
Hay.....tons.....	29,720	1.5	19,813	6 43	191,100
Total.....	.....	.....	113,794	.....	2,371,685

Summary for each State, showing the amount, the number of acres, and the value of each crop, for 1866.

States.	INDIAN CORN.			WHEAT.			RYE.		
	Bushels.	Acres.	Value of crop.	Bushels.	Acres.	Value of crop.	Bushels.	Acres.	Value of crop.
Maine	1,624,239	49,219	$2,192,723	193,150	15,208	$552,409	156,649	9,215	$217,742
New Hampshire	1,321,281	41,290	1,810,155	305,653	18,868	788,585	161,559	10,097	224,567
Vermont	1,490,975	44,774	2,102,275	614,692	30,430	1,641,228	154,783	8,367	233,722
Massachusetts	2,363,245	69,507	3,166,748	160,123	6,563	445,142	401,538	23,345	554,122
Rhode Island	408,293	14,956	579,776	1,413	94	3,956	32,658	1,855	47,028
Connecticut	2,220,502	67,288	2,797,832	71,881	4,155	203,423	776,030	59,695	1,154,045
New York	22,809,893	844,811	26,459,475	12,556,406	826,079	33,525,604	5,309,874	325,759	6,424,947
New Jersey	9,539,223	220,305	9,825,400	1,278,347	94,692	3,745,557	1,408,497	100,607	1,774,706
Pennsylvania	35,831,877	1,041,624	32,607,008	10,519,660	956,333	28,087,492	6,569,690	483,065	7,686,537
Delaware	4,281,570	267,598	3,724,966	685,720	85,715	2,057,160	41,853	4,406	55,664
Maryland	15,024,176	500,806	13,972,483	4,383,708	451,929	12,888,101	476,770	43,343	553,053
Virginia	24,369,908	1,218,495	17,790,033	4,331,364	646,472	12,344,387	698,453	77,606	740,360
North Carolina	21,656,566	1,804,714	24,255,354	2,846,223	490,728	7,741,727	371,327	55,422	631,256
South Carolina	6,026,242	1,021,397	9,521,462	642,815	136,769	2,050,580	53,454	10,691	105,839
Georgia	15,695,909	2,531,598	23,857,782	1,272,456	318,114	3,461,080	69,319	14,441	92,887
Florida	1,984,073	150,308	2,976,110				12,783		
Alabama	21,597,083	2,399,676	32,611,595	657,960	115,432	1,539,626	43,474	6,673	92,165
Mississippi	11,913,650	821,631	18,704,430	258,687	51,737	654,478	23,684	3,116	48,078
Louisiana	6,910,035	406,473	8,499,343						
Texas	20,295,863	780,610	19,078,111	1,847,931	153,994	2,679,500	123,046	7,238	132,890
Arkansas	11,585,332	482,722	13,207,278	584,137	89,867	1,203,322	39,046	3,904	65,207
Tennesssee	46,880,933	2,130,951	36,098,318	3,985,265	751,937	8,807,435	232,190	28,315	273,984
Kentucky	65,564,630	2,061,781	32,126,669	2,063,256	317,427	4,745,489	419,287	45,085	469,601
Missouri	46,819,543	1,520,115	27,155,335	3,544,036	214,790	7,123,512	222,899	11,258	216,212
Illinois	155,844,350	4,931,783	67,013,070	28,551,421	2,196,263	55,104,243	666,455	42,721	526,500
Indiana	127,676,247	3,497,980	56,177,548	9,114,562	1,544,841	21,966,094	345,144	28,290	355,498
Ohio	99,766,822	2,625,443	53,874,084	10,208,854	2,430,680	25,726,312	591,121	54,733	644,322
Michigan	16,118,680	503,709	13,217,318	14,740,639	1,068,162	37,588,630	413,150	26,655	437,939
Wisconsin	9,414,583	332,671	7,719,958	20,307,920	1,400,546	33,914,226	926,492	55,813	815,313
Iowa	52,288,184	1,659,942	23,006,801	15,753,323	984,583	22,369,718	116,946	6,060	80,693
Kansas	6,527,358	190,858	4,112,235	260,465	12,171	497,488	4,548	172	4,366
Nebraska	2,095,030	71,503	1,424,620	257,839	9,917	317,142	2,225	86	2,047
	867,946,295	34,306,538	591,666,295	151,999,906	15,424,496	333,773,646	20,864,944	1,548,033	24,661,290

Summary for each State, showing the amount, the number of acres, and the value of each crop, for 1866—Continued.

States.	OATS.			BARLEY.			BUCKWHEAT.		
	Bushels.	Acres.	Value of crop.	Bushels.	Acres.	Value of crop.	Bushels.	Acres.	Value of crop.
Maine	2,653,626	95,799	$1,831,002	742,619	30,943	$757,471	367,384	11,851	$330,646
New Hampshire	1,481,018	50,720	1,007,092	105,038	4,202	124,995	76,455	3,475	82,571
Vermont	4,846,015	120,249	3,052,989	104,390	3,600	128,400	225,252	7,508	225,252
Massachusetts	1,278,465	43,783	971,633	144,598	6,573	183,659	101,946	4,997	103,985
Rhode Island	154,222	4,406	112,582	35,031	1,237	40,250			
Connecticut	2,741,448	85,670	1,946,428	19,200	817	24,384	348,632	23,242	341,660
New York	54,029,350	1,637,253	32,957,903	4,459,288	189,757	4,726,845	6,476,597	247,198	5,958,469
New Jersey	6,498,487	188,362	3,964,077	27,167	1,358	27,167	861,376	47,854	990,582
Pennsylvania	54,954,560	1,668,320	27,477,280	621,574	27,873	677,515	9,718,728	454,146	9,329,979
Delaware	2,317,857	154,523	1,274,821	5,973	746	5,973	17,205	626	23,570
Maryland	7,056,145	265,269	3,880,880	25,262	1,010	25,262	198,498	7,940	214,378
Virginia	10,245,156	512,258	4,610,320				162,686	9,860	138,278
North Carolina	2,948,771	206,208	2,092,627	2,928			29,098	1,819	38,409
South Carolina	655,881	79,023	728,028						
Georgia	985,453	92,098	985,453	11,745	1,432	21,611	1,922		
Florida	18,759	834	23,449						
Alabama	497,990	43,683	522,890	9,383	1,042	17,546			
Mississippi	101,768	9,785	116,927	1,060	76	2,205	1,700		
Louisiana	89,377								
Texas	1,084,478	42,528	932,651	60,805	2,643	58,981			
Arkansas	308,924	23,763	290,389	4,737	379	7,105			
Tennessee	2,970,836	148,542	1,515,126	20,115	867	27,960	13,322	888	15,587
Kentucky	5,644,573	258,925	2,709,395	137,516	10,186	188,397	14,421	824	16,873
Missouri	3,451,400	112,423	1,518,616	156,297	6,139	160,986	68,113	3,244	63,345
Illinois	30,054,370	883,952	9,917,942	1,037,753	41,510	705,672	273,010	16,250	292,121
Indiana	10,158,562	346,709	3,555,497	339,474	17,867	363,237	443,094	23,321	451,956
Ohio	22,187,420	689,050	8,874,968	1,294,139	66,366	1,475,318	1,705,785	92,205	1,876,363
Michigan	8,293,877	236,135	3,898,122	418,971	16,759	427,350	1,306,819	65,341	1,280,683
Wisconsin	17,174,086	515,738	9,274,006	860,521	34,148	774,469	69,227	4,327	59,535
Iowa	12,607,749	333,538	4,917,022	622,784	24,520	417,265	283,714	17,732	286,551
Kansas	200,316	5,136	94,148	7,255	250	6,820	20,402	728	31,420
Nebraska	450,138	9,537	207,063	8,184	232	6,875	6,453	248	11,908
	268,141,077	8,864,219	135,255,326	11,283,807	492,532	11,383,698	22,791,839	1,045,624	22,164,121

Summary for each State, showing the amount, the number of acres, and the value of each crop, for 1866—Continued.

States.	POTATOES.			TOBACCO.			HAY.		
	Bushels.	Acres.	Value of crop.	Pounds.	Acres.	Value of crop.	Tons.	Acres.	Value of crop.
Maine	6,146,725	39,402	$3,134,830				957,772	1,197,215	$18,465,844
New Hampshire	3,692,860	27,976	1,809,501				665,395	792,137	11,897,263
Vermont	5,305,045	35,845	2,281,169	59,000			862,878	862,878	13,469,525
Massachusetts	3,351,030	24,108	2,312,211	5,171,400		$1,034,280	742,872	742,872	21,090,136
Rhode Island	499,440	4,757	399,552	1,035			53,379	53,379	1,689,979
Connecticut	1,480,268	13,580	1,199,017	7,840,974	6,534	1,528,990	536,527	383,233	13,735,091
New York	31,156,676	291,184	21,498,106	9,824,384	13,683	1,326,291	4,759,516	3,966,264	77,008,969
New Jersey	4,039,708	52,464	3,474,149	153,691			369,566	293,306	9,239,150
Pennsylvania	15,636,859	157,471	11,884,013	4,960,886	6,201	843,350	1,970,836	1,642,363	31,809,293
Delaware	270,220	3,603	189,154				26,820	24,382	469,350
Maryland	1,401,832	20,026	1,121,465	29,963,672	43,237	3,086,258	181,341	139,493	3,675,782
Virginia	1,592,166	19,183	1,050,830	114,480,516	159,444	15,683,830	203,698	156,691	2,908,807
North Carolina	830,565	10,254	588,701	39,423,900	57,722	8,081,399	163,229	125,561	2,121,977
South Carolina	158,714	1,984	163,475	52,206			70,069	70,069	1,541,518
Georgia	258,221	4,165	198,830	1,195,113	1,912	382,436	46,448	51,610	1,097,125
Florida	15,388	82	13,080				9,756	3,252	201,169
Alabama	422,815	3,951	334,024	349,371	1,085	108,305	80,854	80,854	1,506,310
Mississippi	385,318	5,070	246,604	165,507	662	49,652	29,611	34,035	814,302
Louisiana	206,258	2,426	249,572	59,910	156	23,964	36,900		1,107,000
Texas	250,822	1,915	175,575	127,288	153	26,730	15,543	10,366	211,385
Arkansas	263,346		213,310	1,425,571	2,193	456,183	7,578	5,830	200,287
Tennessee	1,501,146	20,849	1,080,825	46,054,983	64,684	9,671,546	140,580	100,414	2,619,000
Kentucky	1,786,200	20,298	1,196,754	61,683,856	81,700	5,859,966	115,844	84,558	1,482,803
Missouri	1,059,323	11,477	836,865	12,952,285	14,768	1,424,751	654,544	344,497	6,486,531
Illinois	5,102,035	58,983	3,265,302	17,546,981	25,578	1,631,470	2,340,063	1,591,880	21,692,384
Indiana	3,774,226	47,594	2,151,309	8,205,973	9,804	689,302	1,088,932	885,310	10,279,518
Ohio	4,516,640	57,905	3,477,813	25,593,815	29,760	1,714,785	1,963,799	1,510,615	21,601,789
Michigan	5,037,298	45,793	2,820,877	278,786	232	41,818	1,218,959	937,661	16,760,686
Wisconsin	3,940,273	43,300	2,521,775	143,344	160	28,669	1,151,477	885,752	14,105,593
a	2,755,726	38,275	2,452,596	390,424	395	78,085	1,161,039	611,073	7,198,442
nsas	243,514	3,006	387,187	22,263	41	6,456	123,082	61,541	883,729
braska	120,319	2,455	210,558	1,550	3	372	29,720	19,813	191,100
	107,200,976	1,069,381	72,939,029	388,128,684	520,107	53,778,888	21,778,627	17,668,904	317,561,837

METEOROLOGY.

[Compiled in the Department of Agriculture from reports made by observers for the Smithsonian Institution.]

MARCH, 1867.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain, (in inches and tenths,) for March, 1867, at the following places, as given by the observers named. Daily observations were made at the hours of 7 a. m. and 2 and 9 p. m.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain or melted snow.
MAINE.								
				°		°	°	*In.*
Steuben	Washington	J. D. Parker	31	48	3	5	26.5	5.18
Lee	Penobscot	B. H. Towle	31	51	16	— 5	22.0	5.30
Prospect	Waldo	Virgil E. Eaton	13	57	15	6	31.1	2.19
Williamsburg	Piscataquis	E. & H. W. Pitman	31	47	15	— 3	22.9	3.85
West Waterville	Kennebec	B. F. Wilbur	31	52	16	— 2	28.0	4.55
Gardiner	do	R. H. Gardiner	31	50	16	— 2	26.6	5.76
Lisbon	Androscoggin	Asa P. Moore						2.80
Webster	do	Almon Robinson	31	50	16	— 1	26.2	
Standish	Cumberland	John P. Moulton	31	53	16	— 1	27.8	3.68
Rumford Point	Oxford	Waldo Pettingill	31	51	16	— 2	27.0	3.00
Cornish	York	Silas West	31	52	3	4	27.3	3.40
Cornishville	do	G. W. Guptill	31	46	3	4	26.6	3.57
Averages							26.5	3.93
NEW HAMPSHIRE.								
Portsmouth	Rockingham	John Hatch	31	54	15	10	32.0	2.63
Stratford	Coos	Branch Brown	31	47	3	— 5	24.0	3.5
North Barnstead	Belknap	C. H. Pitman	31	52	15	11	29.0	2.62
Concord	Merrimack	John T. Wheeler	3	53	3	11	30.6	
Claremont	Sullivan	Arthur Chase	31	58	20	4	29.0	2.53
Averages							28.9	2.83
VERMONT.								
Lunenburg	Essex	H. A. Cutting	29, 31	48	2	0	24.7	2.60
Craftsbury	Orleans	James A. Paddock	31	46	3	— 4	24.6	2.20
Randolph	Orange	Charles S. Paine	31	52	15	— 2	26.7	1.85
Middlebury	Addison	H. A. Sheldon	31	54	3	2	28.4	2.68
Brandon	Rutland	Harmon Buckland	31	62	3	6	29.3	1.64
Barnet	Caledonia	B. F. Eaton, M. D	31	58	1	15	34.3	2.70
Averages							28.0	2.28

Table showing the range of the thermometer, &c., for March—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain or melted snow.
MASSACHUSETTS.				°		°	°	*In.*
Kingston	Plymouth	G. S. Newcomb	31	55	15	13	31.0	4.75
Topsfield	Essex	S. A. Merriam	31	56	15	19	36.4	4.28
Lawrence	do	John Fallon	31	51	14	9	30.0	4.13
Newbury	do	John H. Caldwell	31	59	15	10	31.7	.....
North Billerica	Middlesex	Rev. E. Nason	11	53	15	10	31.2	.....
West Newton	do	John H. Bixby	2, 31	56	15	10	32.5	.....
New Bedford	Bristol	Samuel Rodman	31	58	3, 15	18	33.5	5.31
Do	do	Edward T. Tucker	31	59	15	18	34.3	6.08
Worcester	Worcester	Joseph Draper, M.D.	31	52	15	13	31.9	4.40
Mendon	do	J. G. Metcalf, M. D.	31	51	15	9	29.1	.....
Lunenburg	do	G. A. Cunningham	24	53	15	7	30.7	2.59
Amherst	Hampshire	Prof. E. S. Snell	31	53	15	11	30.8	3.14
Richmond	Berkshire	Wm. Bacon	31	52	15	8	31.3	6.25
Williams College	do	Prof. A. Hopkins	31	51	3	10	30.1	1.38
Averages							31.8	4.23
RHODE ISLAND.								
Newport	Newport	Wm. H. Crandall	31	52	15	14	32.9	6.47
CONNECTICUT.								
Pomfret	Windham	Rev. D. Hunt	31	53	15	11	29.9	2.51
Columbia	Tolland	Wm. H. Yeomans	2	50	15	16	31.9	.....
Middletown	Middlesex	Prof. J. & A. Johnston	31	65	15	15	33.4	3.51
Colebrook	Litchfield	Charlotte Rockwell	24, 31	53	15	14	26.9	.....
Groton	New London	Rev. E. Dewhurst	4	54	15, 19	18	34.0	4.19
Averages							32.2	3.40
NEW YORK.								
Moriches	Suffolk	E. A. Smith & daugh's	31	69	19	15	38.3	5.35
South Hartford	Washington	G. M. Ingalsbe	11, 31	58	19	5	31.4	1.95
Germantown	Columbia	Rev. S. W. Roe	31	63	3	13	32.8	6.40
Garrison's	Putnam	Thomas B. Arden	31	60	15	15	34.0	2.59
Throg's Neck	Westchester	Miss E. Morris	31	56	15	17	34.9	.....
Deaf & Dumb Inst.	New York	Prof. O. W. Morris	31	58	15	16	34.3	4.09
Columbia College	do	Prof. Chas. A. Joy	31	59	15	17	33.7	3.29
St. Xavier's College	do	Rev. J. M. Aubier	31	62	15	19	35.3	3.45
Flatbush	Kings	Eli T. Mack	31	62	15	15	34.1	2.12
Newburgh	Orange	Jas. H. Gardiner	31	62	19	17	33.7	2.11
Gouverneur	St. Lawrence	C. H. Russell	24	57	3, 8, 19	0	25.9	1.49
South Trenton	Oneida	Storrs Barrows	1, 6, 23	40	3, 20	4	25.6	5.30
Cazenovia	Madison	Prof. Wm. Soule	31	52	3	3	29.2	1.63
Houseville	Lewis	Walter D. Yale	22, 23	52	3	1	27.3	2.11
Depauville	Jefferson	Henry Haas	23	46	3	5	28.7	3.24
Theresa	do	S. O. Gregory	.....	.....	.....	.....	.....	2.37
Oswego	Oswego	Wm. S. Malcolm	1	46	3	9	31.2	2.65
Palermo	do	E. B. Bartlett	31	48	3	5	26.7	2.95
Baldwinsville	Onondaga	John Bowman	31	45	3	11	29.6	1.90
Skaneateles	do	W. M. Beauchamp	31	52	18	11	30.6	.....
Nichols	Tioga	Robert Howell	31	59	18, 19	10	32.0	.....
Geneva	Ontario	Rev. W. D. Wilson	1, 31	48	14, 18	12	30.7	0.66
Rochester	Monroe	M. M. Mathews, M.D.	1	53	15	10	29.5	2.08
Rochester University	do	Prof. C. Dewey	1	53	15, 18, 19	10	29.4	2.08

Table showing the range of the thermometer, &c., for March—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain or melted snow.
NEW YORK—Con'd.								
				°		°	°	*In.*
Little Genesee	Allegany	Daniel Edwards	31	61	19	— 1	31.6	1.70
Friendship	do	George W. Fries	31	55	19	4	28.7	.....
Buffalo	Erie	Wm. Ives	1	55	14	9	30.6	4.68
Averages							31.1	2.88
NEW JERSEY.								
Paterson	Passaic	Wm. Brooks	31	63	15	12	34.7	5.71
Newark	Essex	W. A. Whitehead	31	64	19	15	34.5	4.40
New Brunswick	Middlesex	Geo. H. Cook	31	59	18, 19	15	34.1	2.38
Trenton	Mercer	E. R. Cook	31	60	18, 19	22	38.4	7.22
Burlington	Burlington	John C. Deacon	31	62	19	17	36.7	3.80
Moorestown	do	Thos. J. Beans	31	64	15	18	35.6	4.10
Mount Holly	do	M. J. Rhees, M.D.	31	61	19	16	36.5	.....
Seaville	Cape May	Barker Cole	31	52	15	20	38.1	1.91
Dover	Morris	Howard Shriver	31	60	15, 18	17	35.1	2.70
Readington	Somerset	John Fleming	31	58	20	12	34.0	2.98
Haddonfield	Camden	Samuel Wood	31	63	18, 19	18	35.5	4.85
Greenwich	Cumberland	R. C. Sheppard	31	61	19	19	37.7	7.47
Averages							35.9	4.32
PENNSYLVANIA.								
Nyce's	Pike	John Grathwohl	31	59	15, 20	4	29.2	3.10
Fallsington	Bucks	Ebenezer Hance	31	64	19	13	39.5	4.40
Philadelphia	Philadelphia	Pf. J. A. Kirkpatrick	31	60	15, 18	22	37.6	5.67
Germantown	do	Thomas Meehan	11	58	18	14	34.1	.....
Horsham	Montgomery	Anna Spencer	31	63	19	18	34.8	3.94
Dyberry	Wayne	Theodore Day	31	60	20	2	28.8	.....
North Whitehall	Lehigh	Edward Kohler	31	59	19	10	34.7	.....
Parkesville	Chester	F. Darlington	2	56	19	10	35.3	5.00
Reading	Berks	J. Heyl Raser	31	61	18	17	36.8	.....
Ephrata	Lancaster	W. H. Spera	31	62	15	18	36.7	6.14
Mount Joy	do	J. R. Hoffer	31	61	19	14	37.3	3.70
Harrisburg	Dauphin	John Heisely, M. D.	31	56	18	19	35.7	5.21
Lewisburg	Union	Prof. C. S. James	31	63	18	11	33.5	2.45
Tioga	Tioga	E. T. Bentley	31	64	19	2	31.6	2.05
Fleming	Centre	Samuel Brugger	31	57	19	4	32.0	3.04
Pennsville	Clearfield	Elisha Fenton	31	53	19	— 2	29.1	4.55
Connellsville	Fayette	John Taylor	31	57	18	0	33.8	.....
New Castle	Lawrence	E. M. McConnell	1	56	18	3	32.0	.....
Canonsburg	Washington	Rev. W. Smith, D. D.	31	67	18	2	33.7	4.01
Averages							34.0	4.10
DELAWARE.								
Delaware City	New Castle	J. M. Vanhekle	31	64	18	22	36.7	.....
MARYLAND.								
Woodlawn	Cecil	Jas. O. McCormick	31	56	15, 18	20	36.5	6.35
Catonsville	Baltimore	Grape & Ranlett	31	58	18	15	34.9	.....
Annapolis	Anne Arundel	Wm. R. Goodman	2	63	18	20	40.6	10.25
St. Inigoes	St. Mary's	Rev. J. Stephenson	31	69	15	26	40.2	10.87
Emmittsburg	Frederick	Eli Smith	31	62	15	16	35.1	.....
Averages							37.5	9.16

Table showing the range of the thermometer, &c., for March—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain or melted snow.
VIRGINIA.				°		°	°	*In.*
Lynchburg	Bedford	Chas. J. Meriweather	11	64	15	28	42.8	.....
Cape Charles L. h'se.	Northampton	Jean G. Potts	2	62	15, 19	26	39.7	7.27
Averages							41.3	7.27
WEST VIRGINIA.								
Cabell Court-house	Cabell	C. L. Roffe	1	64	14	20	42.0	5.60
Grafton	Taylor	Dr. W. H. Sharp	31	62	15, 18	10	40.7	11.25
Weston	Lewis	Benjamin Owen	12, 24	63	18	10	40.5	.....
Averages							41.1	8.43
NORTH CAROLINA.								
Goldsboro'	Wayne	E. W. Adams, A. M.	2, 4	84	15	30	48.3	9.63
Oxford	Granville	J. H. Mills	2, 11	69	16	25	44.8	2.19
Raleigh	Wake	Rev. F. P. Brewer	2	77	15, 16	28	45.2	6.10
Statesville	Iredell	Thos. A. Allison	2	74	18	23	41.8	10.00
Albemarle	Stanley	F. J. Kron	2	76	18	22	45.7	8.89
Averages							45.2	7.36
SOUTH CAROLINA.								
Aiken	Barnwell	Rev. Jno. H. Cornish	3	76	15, 16	30	49.7	5.11
GEORGIA.								
Atlanta	Fulton	Frederick Deckner	4	80	14	28	48.0	5.74
ALABAMA.								
Moulton	Lawrence	Thomas M. Peters	1, 2, 3	70	14	21	47.4	8.65
Prairie Bluff	Wilcox	William Henderson	2	84	14	28	57.8	.....
Opelika	Lee	J. H. Shields	4	84	17	33	54.2	.....
Havana	Hale	J. W. A. Wright	2	83	14	24	54.3	8.77
Averages							53.4	8.71
FLORIDA.								
Fernandina	Nassau	H. M. Corey	3, 12	82	16	40	60.1	4.45
Gordon	Alachua	H. B. Scott	6	88	18	43	66.4	.....
Averages							63.3	4.45
TEXAS.								
Austin	Travis	J. Van Nostrand	1	85	13, 14	21	51.5	1.48
LOUISIANA.								
Vidalia	Concordia	Rev. A. K. Teele	12	84	14	27	56.3	.....
MISSISSIPPI.								
Fayette	Jefferson	Rev. T. H. Cleland	3	81	14	23	52.1	.....
Natchez	Adams	William McCary	2, 3	79	14	24	54.9	5.05
Kingston	....do	J. Edwards Smith	3	81	14	27	55.2	3.50
Grenada	Yalabusha	Albert Moore	.....	.....	14	20	.....	.....
Averages							54.1	4.28
ARKANSAS.								
Fort Smith	Sebastian	Rev. Frs. Springer	1	80	14	10	40.3	.....

Table showing the range of the thermometer, &c., for March—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain or melted snow.
TENNESSEE.								
				°		°	°	*In.*
Tusculum College	Green	S. S. & W. S. Doak	11	69	14	26	44.2	.....
Lookout Mountain	Hamilton	Edw. F. Williams	1, 3	71	14	15	45.2	.....
Clarksville	Montgomery	Pf. Wm. M. Stewart	1	74	14	11	39.9	8.28
Averages							43.1	8.28
KENTUCKY.								
Louisville	Jefferson	Mrs. L. Young	1	64	14	10	37.4	6.61
Chilesburg	Fayette	Dr. S. D. Martin	1, 24	64	14	12	37.4	8.61
Danville	Boyle	O. Beatty	24	65	14	14	40.3	10.25
Averages							38.4	8.49
OHIO.								
New Lisbon	Columbiana	J. F. Benner	1, 2, 4, 31	56	18	— 1	32.5	4.91
East Fairfield	do	S. B. McMillan	31	55	19	6	31.7	2.98
Martin's Ferry	Belmont	Chas. R. Shreve	31	64	18	10	37.3	.....
Painesville	Lake	E. J. Ferris	31	56	14, 18	6	29.8	.....
Milnersville	Guernsey	Rev. D. Thompson	1	58	18	— 3	32.6	1.72
Cleveland	Cuyahoga	T. A. Smurr, M. D.	1	58	14	10	32.3	.....
Do	do	Mr. and Mrs. G. A. Hyde.	1	58	15	9	31.6	2.73
Wooster	Wayne	Martin Winger	31	63	18	6	32.7	.....
Kelley's Island	Erie	Geo. C. Huntington	31	54	14	9	31.1	1.98
Norwalk	Huron	Rev. A. Newton	31	60	14	8	31.5	1.62
North Fairfield	do	O. Burras	31	61	14, 15, 19	6	31.3	2.95
Westerville	Franklin	Prof. H.A.Thompson	31	58	14	10	35.0	3.79
Kingston	Ross	Prof. John Haywood	10	60	14	10	34.9	3.11
Toledo	Lucas	J. B. Trembly, M.D.	1	57	14	5	30.8	2.13
Marion	Marion	H. A. True, M. D.	1	55	18	2	30.6	2.79
Kenton	Hardin	C. H. Smith, M. D.	31	52	14	26	36.3	2.94
Urbana University	Champaign	M. G. Williams	1	57	18	4	31.7	3.08
Hillsborough	Highland	J. McD. Mathews	1, 10	58	14	8	33.6	3.04
Bethel	Clermont	George W. Crane	10	58	14	8	33.7	2.00
Cincinnati	Hamilton	George W. Harper	1, 10	59	14	8	36.0	2.71
Do	do	R. C. Phillips	1, 29	60	14	15	39.9	1.93
College Hill	do	John W. Hammitt	10	59	14, 18	8	34.2	3.00
Farm School	do	L. B. Tuckerman	1	59	14	8	34.3	3.03
Averages							33.3	2.76
MICHIGAN.								
Monroe City	Monroe	F. & E. Whelpley	1	54	15	3	29.9	1.54
State Agricult'l Col.	Ingham	Prof. R. C. Kedzie	31	56	14	2	29.7	0.68
Litchfield	Hillsdale	R. Bullard	1, 10, 31	48	14	0	26.8	1.53
Grand Rapids	Kent	E. S. Holmes, D.D.S.	22	52	13	7	28.2	.....
Northport	Leelenaw	Rev. Geo. N. Smith	31	50	14	6	26.0	.....
Alpena	Alpena	J. W. Paxton	31	41	13, 14	6	26.7	2.66
Holland	Ottawa	L. H. Streng	1	51	13, 14	11	30.4	1.71
Ontonagon	Ontonagon	Edwin Ellis, M. D.	30	46	14	—12	14.8	.....
Homestead	Benzie	George E. Steele	31	52	6	3	26.7	.....
Averages							26.6	1.62

Table showing the range of the thermometer, &c., for March—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain or melted snow.
INDIANA.				°		°	°	*In.*
Richmond	Wayne	John Valentine	1	58	14	3	31.3	3.32
Vevay	Switzerland	Chas. G. Boerner	1, 10	61	14	11	38.6	5.52
Muncie	Delaware	G. W. H. Kemper, M.D.	1	57	18	0	31.6	3.22
New Albany	Floyd	Dr. E. S. Crozier	1	66	14	10	37.4	5.04
Columbia City	Whitley	Dr. F. & Miss McCoy	1, 31	54	14	0	30.7	1.38
Indianapolis	Marion	Mrs. Z. Butterfield	1	57	14	8	35.8	.....
Rensselaer	Jasper	J. H. Loughridge	1	52	5	— 5	26.6	4.30
Merom	Sullivan	Thomas Holmes	1	54	14	2	31.4	2.45
New Harmony	Posey	John Chappellsmith	1	62	14	9	35.5	3.96
Averages							33.2	3.65
ILLINOIS.								
Chicago	Cook	Samuel Brookes	1	51	14	— 6	29.9	.....
Do	do	J. G. Langguth, jr	30	53	14	— 4	31.4	1.58
Golconda	Pope	W. V. Eldredge	24	65	13	10	39.8	4.50
Aurora	Kane	A. & E. D. Spaulding	1	48	14	— 6	24.7	1.12
Sandwich	De Kalb	N. E. Ballou, M. D.	22	48	12, 13	0	25.9	4.30
Ottawa	La Salle	Mrs. E. H. Merwin	1	54	14	1	31.7	1.42
Winnebago	Winnebago	J. W. & Miss Tolman	1	43	14	— 8	23.8	1.58
Dixon	Lee	Joseph T. Little	20	64	14	—10	27.7	.....
Magnolia	Putnam	Henry K. Smith	1	53	14	—10	26.5	3.33
Lacon	Marshall	A. H. Thompson	1	50	14	— 7	27.3	2.50
Rochelle	Ogle	Daniel Carey	22	49	14	— 8	26.9	.....
Wyanet	Bureau	E. S. & Miss Phelps	1	48	13	— 7	27.1	0.60
Tiskilwa	do	Verry Aldrich	1, 22	50	14	— 7	28.6	1.35
Elmira	Stark	O. A. Blanchard	22	48	13	— 6	28.0	1.95
Peoria	Peoria	Frederick Brendel	1	52	14	— 6	29.4	1.74
Springfield	Sangamon	G. M. Brinkerhoff	20	58	14	— 2	29.2	.....
Loami	do	Timothy Dudley	1	64	14	— 4	30.1	1.90
Waterloo	Monroe	H. Künster	1	66	14	— 3	31.5	.....
Dubois	Washington	William C. Spencer	1	56	14	2	30.4	3.53
Galesburg	Knox	Pf. W. Livingston	1	51	14	— 7	25.2	0.84
Manchester	Scott	Dr. J. & C. W. Grant	1	60	14	— 3	29.6	1.95
Mount Sterling	Brown	Rev. A. Duncan	22	54	13	— 6	30.0	.....
Andalusia	Rock Island	E. H. Bowman, M. D.	1	50	14	— 6	28.8	.....
Augusta	Hancock	S. B. Mead, M. D	1	52	13	— 5	28.6	1.67
Averages							28.8	2.11
WISCONSIN.								
Manitowoc	Manitowoc	Jacob Lüps	1	48	14	— 6	26.3	1.80
Plymouth	Sheboygan	G. Moeller	31	52	14	—13	23.5	2.50
Milwaukee	Milwaukee	I. A. Lapham, LL.D	1	47	14	— 7	26.2	1.81
Do	do	Carl Winkler, M. D.	1, 31	47	14	— 4	27.4	1.10
Delavan	Walworth	Leveus Eddy	1	44	14	— 8	24.3	1.63
Waupacca	Waupacca	H. C. Mead	31	55	13	—10	25.5	.....
Embarrass	do	E. Everett Breed	30	51	14	—17	18.6	2.45
Rocky Run	Columbia	W. W. Curtis	31	47	14	—11	24.5	2.88
Beloit	Rock	H. D. Porter	30, 31	44	14	— 6	20.0	0.51
Baraboo	Sauk	M. C. Waite	22	52	14	— 6	35.7	2.30
New Lisbon	Juneau	John L. Dungan	22	58	14	—17	23.6	.....
Bayfield	La Pointe	Andrew Tate	30	60	14	—16	19.5	.....
Averages							24.6	1.78

Table showing the range of the thermometer, &c., for March—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean. temp.	Rain or melted snow.
MINNESOTA.				°		°	°	*In.*
Afton	Washington	Dr. and Mrs. B. F. Babcock.	20	47	14	—18	15.4	.....
St. Paul	Ramsey	Rev. A. B. Paterson.	20	42	13	—22	13.2	1.00
Sibley	Sibley	C.E. and C.W. Woodbury.	20	40	11, 13	—20	8.1	1.17
New Ulm	Brown	Charles Roos	20	46	5, 12	—15	11.5	0.94
Averages							12.1	1.04
IOWA.								
Clinton	Clinton	Dr. P. J. Farnsworth	24, 28, 31	42	14	— 8	26.5	6.00
Lyons	....do	A. T. Hudson	1	54	13, 17	— 7	24.7	1.47
Davenport	Scott	Sydney Smith	1, 22	45	14	— 8	24.5	3.00
Dubuque	Dubuque	Asa Horr, M. D.	22	45	14, 17	— 7	26.0	2.02
Atalissa	Muscatine	B. Carpenter	22	49	13, 14	— 5	24.6	2.53
Monticello	Jones	M. M. Moulton	22	47	13, 14	— 2	24.6	1.35
Fort Madison	Lee	Daniel McCready	1	52	14	—12	27.5	3.37
Guttenburg	Clayton	Jas. P. Dickerson	22, 31	49	14	—20	21.1	1.75
Ceres	....do	J. M. Hagensick	22	50	14	—10	24.8	.....
Mount Vernon	Linn	Prof. A. Collins	22	51	14	—15	22.7	.....
Iowa City	Johnson	Prof. T. S. Parvin	22	47	13	—13	25.7	2.50
Independence	Buchanan	Mrs. D. B. Wheaton	22	50	14	—26	18.8	3.00
Do	....do	D. S. Deering	20	43	14	—16	20.7	.....
Waterloo	Black Hawk	T. Steed	21	44	14	—20	20.4	.....
Iowa Falls	Hardin	N. Townsend	1	40	14	—19	15.4	3.17
Algona	Kossuth	Philip Dorweiler	6	36	14	—25	9.2	.....
Fontanelle	Adair	A. F. Bryant	31	52	13	—17	18.0	1.30
Harris Grove	Harrison	Jacob F. Stern	31	44	14	—16	18.6	2.75
Fort Dodge	Webster	C. N. Jorgensen	31	37	14	—19	14.4	2.11
Averages							21.5	2.59
MISSOURI.								
St. Louis University	St. Louis	Rev. F. H. Stuntebeck	1	69	14	5	33.9	1.73
Allenton	....do	A. Fendler	1	78	14	0	33.4	2.76
Union	Franklin	Miss Belle Moore	1	76	14	3	34.2	1.30
Canton	Lewis	George P. Ray	21	57	5	—12	27.6	1.37
Rolla	Phelps	H. Ruggles	1	74	14	2	30.2	2.40
Harrisonville	Cass	John Christian	1	52	14	—12	28.2	4.90
Oregon	Holt	William Kaucher	20	53	13	— 7	25.2	2.95
Averages							30.4	2.49
KANSAS.								
Leavenworth	Leavenworth	J. Stayman, M. D.	22	50	14	—18	25.7	2.75
Olatha	Johnson	W. Beckwith	1	54	14	— 8	25.9	3.10
Atchison	Atchison	Dr. H. B. & Miss Horn	31	49	14	—14	24.2	4.60
State Agr. College	Riley	Prof. B. F. Mudge	30	52	14	— 9	24.8	0.63
LeRoy	Coffey	J. G. Shoemaker	1, 18	57	13	— 2	30.7	3.11
Council Grove	Morris	A. Woodworth, M. D.	1, 30	50	14	—17	21.0	0.30
Averages							25.4	2.42
NEBRASKA.								
Glendale	Cass	Dr. and Miss Child	31	45	13	—13	16.9	2.12
WASHINGTON TER.								
Neeah Bay	Clallam	A. Sampson	27	52	11, 13, 22	32	40.7	.....

NOTES OF THE WEATHER, MARCH, 1867.

FROM THE SMITHSONIAN INSTITUTION.

The preceding tables show partially the extent of the extreme cold about the 14th to the 16th of the month; in the following notes a few selections have been made illustrating the suddenness and severity of this cold at some of the southern stations. This depression prevailed over the whole country, as far as registers have been received, but it did not everywhere give the minimum of the month:

St. Anne, Canada East.—March 2.—A sudden gale from the west at noon. Thermometer at 7 a. m., 29°; at 7 a. m. next day, 7° below zero. 21st.—Ice in the river St. Lawrence breaking up; crows beginning to return. 28th, a great deal of floating ice going slowly down the river. 31st, river pretty clear of ice except along the south bank.

Gardiner, Me.—The mean temperature of March was 3.63° below the average of the month for thirty-one years; the amount of moisture was two inches more than the average.

Rumford, Me.—There was an unusual amount of snow this month, thirty-five inches in all; on the 31st it lay three feet deep on a level.

West Waterville, Me.—March 31.—Sleighing of the season not quite over, though the roads are getting somewhat bare.

Lisbon, Me.—March 31.—In many places out of the village the snow is now a foot deep and sleighing quite good; good crossing on the ice at South-west Bend.

Cornish, Me.—March 18.—The snow of yesterday was the heaviest of the winter; it is fifteen inches deep on a level. 31st.—The mean temperature of the month was 1.65° below the average for the last thirty-five years.

Concord, N. H.—March 17.—Snow all day; the heaviest snow storm of the season. 31st.—The snow has not yet entirely departed, but is going gradually. The roads have become dry in patches here and there.

Stratford, N. H.—Eighteen and a half inches of snow fell on the 17th and 18th.

Brandon, Vt.—March 10.—Ice on Otter creek breaking up. 13th.—Otter creek clear of ice. 31st.—First appearance of bluebirds.

Randolph, Vt.—March 7.—Snow fell about nine inches deep, but solid and compact; there has been no sleighing until now since the first of February.

Barnet, Vt.—Twenty-seven inches of snow fell during the month.—There was so little snow on the ground in the coldest weather that it froze very deep, some three feet, and will require considerable rain and warm weather to thaw it to the bottom.

New Bedford, Mass.—March 17.—A severe snow set in about 7½ p. m. yesterday, and continued till 10 or 11 p. m. this day; depth about fourteen inches. The wind changed to northwest at 3 p. m. to-day. This was the hardest snow storm of the winter. 24th.—Crocus flowers first noticed. 31st.—The flower buds of the silver poplar begin to open; but few vestiges of snow drifts remain.

Topsfield, Mass.—March 31.—The snow is disappearing rapidly, though a large amount still remains.

Mendon, Mass.—March 31.—Many banks of snow from two to three feet deep; very little frost in the ground.

Lunenburg, Mass.—March 16, 17.—Severe snow storm; twelve inches of snow, a good deal drifted. 31st.—The month closes with very bad travelling, and snow drifts in some places six to eight feet in depth.

N. Billerica, Mass.—March 5.—Two blackbirds noticed. 12th.—Robins appear; blackbirds common.

Kingston, Mass.—March 16, 17.—Eighteen inches of snow fell yesterday and to-day. Total fall of snow in four months, sixty-three inches.

Columbia, Conn.—Commenced snowing at 4 o'clock p. m. on the 16th, and continued with the wind northeast till the 17th at 10 p. m., when the wind veered into the north, and the snow ceased; depth, twelve inches. The next morning the wind was northwest, and so continued for three days.

Colebrook, Conn.—March 31.—Snow-birds singing this morning; snow-banks two to eight feet deep.

Pomfret, Conn.—March was a cold, rough month; two degrees colder than the mean of many years.

Groton, Conn.—March 5.—Steamer arrived from New York; first trip.

New York, N. Y.—Snow storm began at 10.40 a. m. of the 15th, and continued, with some intermissions, till 5.50 p. m. of the 17th; depth, thirteen inches.

Rochester, N. Y.—The mean temperature of the month was 2.82° below the average of March for thirty-one years. The snow storm of the 16th began at 2.30 p. m., and continued till 6 o'clock the next morning; depth, six inches.

Buffalo, N. Y.—Snow storm from 1 p. m. of the 16th to 5 p. m. of the 17th; five and a half inches of snow fell; a high wind from 2 p. m. on the 17th, increasing to a gale at 4 p. m., and blowing the most of the night.

Germantown, N. Y.—Steamboats commenced running from New York to Hudson on the 13th; bluebirds first made their appearance here on the 17th; the frost out of the ground on the 29th, and the snow gone, except here and there the remains of a heavy drift. The ground has not been frozen, as a general thing, over twelve inches, having been covered all the latter part of the winter, and up to the middle of March, with snow.

South Hartford, N. Y.—The month was noted for the absence of the usual March winds. Twelve and a half inches of snow fell during the month, but there was no sleighing.

Garrison's, N. Y.—March was very remarkable for the frequency of its storms and very unusual fall of snow, which exceeded thirteen inches, and though the winter's frost left the ground early in the month, the earth froze almost every month, sometimes to the depth of three inches.

Depauville, N. Y.—March 20.—Last day of sleighing; it lasted since December 11, one hundred days; most of the time fine. 24th.—Ice on the river rather poor, and crossing with teams not safe. 31st.—Ground all bare, except old drifts along fences and on other sheltered places, and the frost almost all out of the ground, but the ponds and streams are still covered with ice. None of the early spring birds have made their appearance yet.

Palermo, N. Y.—March 18.—Eighteen inches of snow fell yesterday and to-day, ending at 3.40 p. m.

Burlington, N. J.—March 31.—There were but seven clear mornings during the month, and but one entirely clear day.

Newark, N. J.—The temperature of the month was 3.68° lower than the average of March for twenty-four years; only in 1852, 1856, and 1863 was the month as cold. The amount of rain and melted snow was nearly an inch in excess of the average for March. The falls of rain and snow were so frequent as to keep the surface of the ground almost constantly wet. There was less fair weather than in any March covered by these reports. Snow was observed on nine days, falling to the depth of seventeen and a half inches. Rain fell in mensurable quantities on six days, and there was some sprinkling on six others.

Fallsington, Pa.—March 18.—Best sleighing of the winter. Ten inches of snow fell on the 16th and 17th. Fall of snow during the month at least twenty-five inches.

Pennsville, Pa.—A high flood on the 12th and 13th, but not sufficient to do much damage. Thunder and lightning on the 23d. There was a very large

proportion of dull, cloudy weather during the month. A large amount of snow remained on the ground at the end of the month; more like the close of February than March.

Mooreland, Pa.—March 31.—The month was stormy and unpleasant, and at the close there are very few indications of spring. No ploughing or spring work of any kind has been done yet.

Tioga, Pa.—March 31.—The whole of the month was very bad for getting about, and very unfavorable for any kind of out-door labor. The ground is still frozen, and the hills are covered with snow. No kind of farm spring work has been done yet.

Reading, Pa.—March 27.—Tulips and hyacinths just above ground; 31st, gooseberries about leafing. The greatest depth of frost in the ground was from fifteen to twenty inches.

Ephrata, Pa.—Over twelve inches of snow fell on the 21st and 22d.

Woodlawn, Md.—March was disagreeable—the ground covered with snow or the mud soft nearly all the month, preventing out-door work. The farmers have made no progress with their work; a few made a beginning to plough, but only for a part of one day. Fall of snow during the month fourteen and a quarter inches, and there is considerable in the fields now at the end of the month.

Emmittsburg, Md—March 22.—Snow from 3 a. am. to 9 p. m.; sixteen inches—the heaviest fall of snow this winter.

Catonsville, Md.—Twenty-two and three-quarter inches of snow fell during the month; ten inches on the 22d, the deepest of the season.

Cape Charles Light-house, Va.—March 2.—Very pale and diffuse lightning and distant thunder at 10 p. m., from the northeast. 12th, a thunderstorm from the westward from 11 a. m. to 2 p. m., with sharp, zigzag lightning. 17th, distant thunder about 4 p. m. in a westerly direction. On the 20th, 21st, and 22d, a most violent gale swept the coast from the northeast, which washed away the island about fifty yards on an average. The tide reached a height that the old people in the vicinity assert has not been observed since the "September gust," years ago. The tide swept through every glade on the island, washed away bridges, and otherwise damaged the island considerably.

Ashland, West Va.—Seven inches of snow fell during March—three inches on the 4th and four inches on the 6th.

Albemarle, N. C.—March 13.—Hyacinths, narcissus, cherries, peach, and plum in full bloom. 16th.—Yesterday in the afternoon it commenced snowing, and continued until the ground on a level was covered to the depth of three inches. Freezing on the top and melting next to the earth, over half of the snow had disappeared by night. Much damage has been done among the cherries, apricots, and peaches that were in full bloom. On the 19th a northeaster set in, and with it a cold, drizzling rain sufficient to keep everything wet without making much show in the rain gauge. It continued till the 21st.

Statesville, N. C.—March 5.—House struck by lightning. 21st.—Trees hanging with ice. Peach trees in bloom; peaches not yet killed; but little ploughing yet done, owing to the wetness of the season. 29th, 30th, 31st.—Ground frozen one inch; peaches not yet altogether killed; very little wind this month.

Aiken, S. C.—March 12.—Lightning and thunder in the evening. 16th.—Orchards in full bloom all incased in ice; not the most delicate flower nor tenderest plant injured by it. 29th.—White frost this morning entirely destroying the peach crop. 31st, thunder at 2 p. m.

Wilkinsville, S. C.—March 12.—Thunder-shower, violent—a few hailstones. 13th.—Heavy rain, much thunder and lightning. 14th.—Moderate rain; small streams much swollen. 15th.—Ground frozen in exposed places a quarter of an inch; ice observed from 6 to 10 a. m.; snow with a little sleet 4 p. m. to mid-

night. 16th —General average of snow on ground an inch and a half; about four inches fell.

Atlanta, Ga.—March 13.—First pear trees in full bloom. 14th and 16th. On these mornings everything, trees, &c., covered with an ice-crust. 31st.—Portugal quince in full bloom.

Moulton, Ala.—The very severe frosts of the 13th, 14th, and 15th of March were very destructive of the young vegetation, which was then considerably advanced. Peas planted on the 14th February, which were from four to six inches high, were nearly all killed. Cabbage plants, mustard, radishes, beets, and lettuce were killed; onions, hyacinths, and tulips were very much bitten; all the leaves of the rose bushes were killed, and the noisettes and bourbons very much injured. All the apples, peaches, plums, and cherries in bloom had the fruit wholly killed, and the leaves very much injured. Wheat and oats are not thought to be seriously injured. There was not a perfectly fair day during the month, and there was but little high wind.

Havana, Ala.—March 14, 15.—The severe cold of these dates retarded vegetation greatly; nearly all garden vegetables were killed; the young leaves of many forest trees were also killed; the young fruit of peach and plum trees appears to be blighted. Some farmers had corn up in time to be nipped; but it was not entirely killed.

Grenada, Miss.—March 5.—Sleet in morning; 6 to 9 p. m., heavy rain, with frequent and severe lightning, thunder, and wind. 13th—Sleet and snow; snow one inch deep; it lay in patches until the 18th. Frost on the 18th, and at 6 p. m. heavy rain, wind, and thunder from northwest. 31st.—Peaches and plums have been nearly, or quite, all killed; oats and early wheat injured.

Kingston, Miss.—March 4.—Temperature at 7 a. m. 72°, (the highest at that hour during the month;) at 2 p. m. 58°; at 9 p. m. 43°; at 7 a. m. the 5th, 38°, being a fall of thirty-four degrees in twenty-four hours; much damage was done to gardens and fruit trees by this sudden change of temperature. From the 19th, 11 p. m., to the 21st, 9 a. m., two inches of rain fell. At 9 p. m. of the 20th there was a heavy squall, accompanied with vivid lightning and thunder.

Natchez, Miss.—March 20.—A severe thunder-storm last night at 10.30 p. m., with very loud thunder, sharp lightning, and strong wind; duration of storm about thirty minutes. The rain fell in torrents; direction from southwest to northeast.

Fayette, Miss.—All fruit destroyed by the hard frost of the 14th and 15th; vegetation put back a month.

New Orleans, La.—March 17.—Last night light frost on decks of vessels. 31st.—This morning torrents of rain flooding the city, accompanied by a high northeast wind and lightning. The atmosphere is much affected by the icy water of the Mississippi river.

Vidalia, La.—March 10.—Thunder-storm from 5 to 6 a. m. March 14 and 15, an inch and a half of snow fell. For several days the weather had been warm and beautiful; thermometer on the 12th, 72° at 7 a. m., and 84° at 2 p. m. Wild flowers of many varieties were in full bloom, peaches beginning to form, and small figs in abundance on the trees. On the 13th the temperature had fallen to 49°, at 2 p. m. to 42°; and on the 14th, at 7 a. m., to 27°. The severe and sudden cold destroyed almost all vegetation, and locked the ground in frost. 25th.—Thunder-storm from 7 to 9 p. m. 31st.—The Mississippi river at this point is twenty-four inches higher than in 1865, twelve inches higher than in 1862, and higher than at any time since 1828.

Austin, Texas.—March 7.—Frost. 12th.—Temperature at 2 p. m. 77°; mean of the day 62½°. 13th.—At 10 a. m. 19°; at 2 p. m. 21°; mean of the day 22°; a violent norther; ground covered with snow. 14th.—Temperature at 7 a. m. 21°; mean of the day 26°. 15th.—Thunder and lightning. 16th, 17th,

white frost. Wild plums and peaches blossomed about the middle of February, but the blossoms were killed by the intense cold of the 13th and 14th of this month.

Lookout Mountain, Tenn.—March 1.—Peach trees in bloom. 4th.—Thunder; violent rain from 7 to 11 p. m. There was a gradual rise of temperature from the 8th to the morning of the 13th, and then a sudden and extreme fall. The mean of the 12th was 64.4°; 13th, 7 a. m., 70.9°—2 p. m., 36.6°; 14th, 7 a. m., 15°—mean of the day 21.7°.

Clarksville, Tenn.—Five inches of snow on the 5th, and three-quarters of an inch on the 13th; two or three other snows, enough to whiten the ground. The morning of the 14th was the coldest of the season except two, January 18 and February 10.

Danville, Ky.—Temperature at 7 a. m. on the 12th, 57°; at the same hour on the 14th, 14°; mean temperature of the 14th, 18.7°.

Chilesburg, Ky.—Twenty inches of snow fell in March, sixteen of it on the 4th and 5th.

Urbana, Ohio.—The mean temperature of the month was 6½ degrees below the average of March for the previous fifteen years; the quantity of snow was 14.05 inches, which is very near three times the average for the same period; the quantity of water, including rain and melted snow, was scarcely over the average. The cloudiness was 26 per cent. over the mean for fifteen years.

Kelley's Island, Ohio.—The temperature of March was 3.27° below the average of the month for the last eight years; and the amount of snow was 6.16 inches above the average for the same period.

North Fairfield, Ohio—Blackbirds returned on the 10th, and robins in flocks of any size were first noticed on the 12th, when the woods appeared to be full of them, making their way northward. The month was very cold; streams frozen nearly as hard as at any time during the winter, not breaking up until the afternoon and night of the 30th.

Litchfield, Mich.—March 31.—There is more snow remaining in drifts than has been known at this date since 1843.

Grand Rapids, Mich.—March 25.—Grand river open; steamboat navigation commenced for the season this morning.

Sugar Isle, Thunder Bay, Mich.—March 21.—The lake is to all appearance full of floating ice, but not heavy, moving with every shift of the wind; it has not been safe to travel on at any time during the past winter; none found now over fifteen inches thick. 22d.—Not a particle of ice to be seen on the lake today. 31st.—During the last three days the ice has been running down the lake; although the wind was off land, the ice keeps in sight.

New Harmony, Ind.—March 1.—Heavy thunder-storm at 6 p. m.

New Albany, Ind.—March 12.—The flower tufts of the swamp maple (*acer rubrum*) showing their colored stamens, and will soon be in full bloom; crocuses in bloom. The late rains have caused the river to rise again very rapidly; now higher than at any time since 1847. 13th.—Hundreds of people houseless by reason of the flood. 14th.—The Ohio river reached its highest point at 5 p. m., three feet nine inches lower than in 1847. 29th.—Ice this morning, first bright day of the month.

Vevay, Ind.—Five inches of snow on the 4th, nine inches during the month. First flock of blackbirds on the 12th.

Magnolia, Ill.—March 18.—Rock river frozen for teams; Illinois river frozen for footmen. 31st.—Twelve inches of frost on the prairie yet.

Loami, Ill.—March was noted for its storms and uniform cold weather; five snow-storms during the month, amounting in all to seventeen inches in depth; the season is unusually backward; no signs of vegetation at the end of the month.

Dubois, Ill.—There was not one whole clear day during the month.

Tiskilwa, Ill.—The observer does not remember so unpleasant a March during the twenty-three years he has lived here. Has been engaged in the nursery business for the past fourteen years, and has always begun digging trees by the middle of March until last spring, when it was a week or more later, and now (March 31) with good warm sunny days cannot begin for a week yet in most favorable places.

Mount Stirling, Ill.—March 15.—Robins made their first appearance. 31st. Frost not yet out of the ground. Flocks of wild geese have been seen almost daily during the past week flying north.

Golconda, Ill.—March 18.—The Ohio river is fourteen inches over the high-water mark of 1832, the highest ever before known. 31st.—No planting or seeding done in this county yet; the season is unusually late.

Chicago, Ill.—March 15.—The Chicago river is again closed with ice and impassable for vessels. 30th.—Navigation is fairly opened, and several vessels arrived and departed to-day.

Aurora, Ill.—March 20.—Frost in the ground three feet. 31st.—Coldest March since observations began, nineteen years.

St. Louis, Mo.—Four and a half inches of snow fell during the month.

Union, Mo.—March was remarkable for its steady low temperature, continued cloudiness, and extreme cold of the 13th and 14th, which destroyed a large number of the peach-buds. Three and a half inches of snow during the month.

Canton, Mo.—March was colder than any February since 1862.

Oregon, Mo.—March 14.—Thermometer twelve degrees below zero at sunrise. Eleven and a half inches of snow fell during the month.

Plymouth, Wis.—The thermometer was below zero on the 13th, 14th, 15th, and 17th. Mean temperature of the 13th, two degrees below zero; at daybreak on the 14th, 1°.5 below. Fall of snow during the month, twenty-two inches.

Milwaukee, Wis.—The 13th was the coldest day observed in March for twenty-five years. The cold northwest wind commenced at 1 a. m.

Waupacca, Wis.—Good sleighing till the 1st of April.

St. Paul, Minn.—The thermometer was below zero on fourteen days in March. Ground frozen to the depth of three feet two inches. At the end of the month the Mississippi river was as firm as in January; ice two and a half feet thick. Fall of snow during the month, fourteen inches, eight of which fell on the 9th and 10th.

Sibley, Minn.—The mean of all the observations for the month at 7 a. m. was below zero. Fifteen and a half inches of snow during the month, twelve of which fell on the 26th and 27th.

Afton, Minn.—March 31.—Good sleighing yet in the country.

Monticello, Iowa.—This March was the coldest during the last thirteen years, the period for which the observer has kept a record.

Iowa City, Iowa.—The mean temperature of March was $8\frac{1}{3}^{\circ}$ below the average of the month for twenty-nine years; March, 1843, was more than ten degrees lower still.

Fort Dodge, Iowa.—March 31.—Twenty-one and a half inches of snow fell during the month, the most of which is still on the ground. The Des Moines river is yet frozen to the depth of two and a half feet, and perfectly safe for travelling.

Harris Grove, Iowa.—March 31.—There have been one hundred and seven consecutive days of sleighing, and the best was during the last days of this month. The Missouri river is still frozen over.

Fort Madison, Iowa.—This March was the coldest since the observer began keeping a record, which was in 1848.

Algona, Iowa.—March 31.—The ground is all covered with deep snow, and

no thaw yet. Thermometer below zero on sixteen days in the month. Mean temperature of the month at 7 a. m., 3.26°.

Council Grove, Kansas.—Fall of snow in March, three inches. On the 14th ground frozen six inches in depth.

Atchison, Kansas.—The first steamboat of the season arrived from St. Louis. 14th.—The Missouri river closed both above and below this city last night. This morning was the coldest of the winter. Fall of snow during the month, 9.55 inches.

Leavenworth, Kansas.—On the 15th the thermometer rose from zero at 7 a. m., to 46° at 11½ a. m., a rise of forty-six degrees in four and a half hours. The cold on the night of the 13th killed all the fruit-buds of the peaches and apricots, and also injured some of the grape-vines.

Manhattan, Kansas.—This is said to have been the coldest March known to the oldest settlers. Snow fell on ten different days, but in quantities too small to measure, except on the 12th and 13th, when it amounted to three inches.

Glendale, Nebraska.—The 13th of March was the coldest day of the winter. 31st.—The first flock of wild geese noticed flying north. Nine and a half inches of snow fell during the month.

Colorado City, Colorado.—During the first week in March the thermometer indicated from twenty to thirty degrees below zero. Snow has fallen on almost every day, but has not accumulated. There are now (March 28) about four inches on the ground from a fall of last night, and the snow is still falling.

REMARKS.

One of the years in which the coldest March occurred over nearly the whole country was in 1843, as appears from an examination of the meteorological tables published by the Surgeon General's Office. A few selections from the stations where observations have been made for the longest series of years are here given, showing the mean temperature of March for that year and the period of time over which the record extends. At all these stations the coldest March was in 1843:

Fort Columbus, New York	1822 to 1859,	mean temperature	30.31
Fort McHenry, Maryland	1831 to 1859	do.	30.14
Fort Monroe, Virginia	1825 to 1859	do.	37.09
Fort Moultrie, South Carolina	1823 to 1859	do.	48.82
Fort Jessup, Louisiana	1823 to 1845	do.	41.60
Fort Gibson, Indian territory	1828 to 1854	do.	39.50
Jefferson Barracks, Missouri	1827 to 1854	do.	25.50
Fort Brady, Michigan	1823 to 1854	do.	3.69
Fort Snelling, Minnesota	1820 to 1858	do.	4.67
Fort Leavenworth, Kansas	1830 to 1859	do.	17.45

At Washington, Arkansas, according to the observations of Dr. Smith, published by the Smithsonian Institution, March, 1843, was the coldest month in the whole period of twenty years, (1840 to 1859,) except January, 1856.